

TGTCAACACA GCTGGCTGGA TGATTGGGAC TTTAAACGA CCCTCTTTCA GGTGGATTCA 120
GAGACCTGTC CTGTATATAA CAGCACTGTA GCAATAAACG TGACATTTTA TAACGAAA 178

5 SEQ ID NO:3746
SEQUENCE LENGTH:332
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04405

SEQUENCE DESCRIPTION:

GATCCGAGTT CCTCACC GCG GGC CGGGATG TGACCACCCT NTTCAGAGGT TGGACCCAG 60
GCTTCAAGCA CCGAGTGAGG GGTCTGTTGG GCCCCCTGGG AGAGTCTCTG GTGTGAAGTG 120
GCTTAGGTCT GGACTGGTCA GCTGTGGCAC CAGCCGGTCC TGCCACGCT TCAGGATGGC 180
15 CGGGGGCTGC CCCTGTGGGA GAGTTGCCAA GACTCGGCGA TACCAAGGAT GGAAGCCAGA 240
GGCTGTGGCG AGGGAGAGCC AAGCATATTC CCAGCACCAG GGCCACTGCT GGCACGTCGT 300
AGACATCCAA TAAATATTTT TGGAAGGAGA AA 332

20 SEQ ID NO:3747
SEQUENCE LENGTH:177
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04406

SEQUENCE DESCRIPTION:

GATCTNNATA CTGTGAATAG CAGAATGTAC AGATGAAGAA TATTAATAATN AGGGGCGTCC 60
ACTCCAAAAC ATATCACCAG AGTGACAAC TCAGCCCTCA GCCTCTGCAA TCCATATATA 120
30 TNCTGGTCTT GGGAGTCCAT AGAATACTGT TTCCTTCTAA TAAAGGTTTC AAACAAA 177

35 SEQ ID NO:3748
SEQUENCE LENGTH:186
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
40 CLONE:HUMGS04407

SEQUENCE DESCRIPTION:

GATCAATAAT AGTACCTTTN ATTATACATT TATTATTGTN TCTCTCTCTG ATGTACTGTG 60
GATTGTACAT TTAACCTTTG AATGGCTTTG TAATAATCAG TCTTAAGAAA ATNTTGACAA 120
45 GCTCTGTTG CTTATTTTAA GAAAATAAGG ACATTTAATA ATAATAAAAA AAAAGGGATT 180
AATAAA 186

50 SEQ ID NO:3749
SEQUENCE LENGTH:175
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
55 CLONE:HUMGS04408

SEQUENCE DESCRIPTION:

GATCCCCAGT GGATGCCTGA AACC GCAGAT AGTACTGAAC CTTATATATA CTGTTTGTTC 60
TCCTATGCAT ACATATCCCT ATGATAAAGT TTATGAATTT GGCACCTAAC AGCAGAACTA 120

ATAAGATGAA AGAGTTGTAA CAATATACTC TAATAAAAGT NATTTAAAT GTAAA 175

SEQ ID NO:3750

SEQUENCE LENGTH:172

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04409

SEQUENCE DESCRIPTION:

GATCAACAAT GAGCAGAAAC ATCATCAGTC CTTCCAAGG ACCATGGCGT TTAATGTCTT 60

GGGCACCCCT TGGAAATCAC AGAAAGTCAG CNGTACTGGC CGTGTGGAAC TTNCATCCCA 120

AGACCTACTT TNCAACTGAG TAAGAAGGTC ATTGTGCCCN CTGCATTNNN NN 172

SEQ ID NO:3751

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04410

SEQUENCE DESCRIPTION:

GATCAAAAAA TGTTTATNCT GAATTCNTA ATTTAAAAA NTCATACCTA TNAGGTGTGC 60

TACAGGAATT CAGATACAAT AAGTTGCATA TAAACCCGA CCTCANN 107

SEQ ID NO:3752

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04411

SEQUENCE DESCRIPTION:

GATCTGACCA ACAAGGCCAC AGGAAAATTA ATAGCACAAG GAAGACACAC AAAACACCTG 60

GGAAACTGAG AGAACAGCAG AATGACCTAA AGAAACCCAA CAATGAATAT CAAGTATAGA 120

TTTGACTCAA ACAATTGTAA TTTTGAAT AAACAGCAA AACCAGAAA 169

SEQ ID NO:3753

SEQUENCE LENGTH:167

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04412

SEQUENCE DESCRIPTION:

GATCTNCTTG GCCAGCAGGA CGTCCAAGGA CCAGAGCCTG TGTGATGTCC TNGAACAGGT 60

NTGCGGCGTC CTCAAGCAGG GGAGCTGAGC CTTCCANAGG CAGGGTGGGC TCCAGTTGTC 120

TTGAGGGTCC GGATGGGCTC AGGTAATAAA GAAACGGAAG CAGCAAA 167

SEQ ID NO:3754

SEQUENCE LENGTH:168

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04414

SEQUENCE DESCRIPTION:

GATCTGGGCT GTGGGGCCCT TGGGCCACGC TCTTGAGGAA GCCCAGGCTC GGAGGACCCT 60
 GGAAAACAGA CGGGTCTGAG ACTGAAATTG TTTTACCAAC TCCCANGGTG GACTTCAATG 120
 TGTGTATTG TGTAAATGAG TAAACATTT TATTTCTTT TAGGTAAA 168

SEQ ID NO:3755

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04415

SEQUENCE DESCRIPTION:

GATCTATGAT TTATNATGTC TTAATAGACC CTAAATTGTT CTTTAATTAC AAGAGTGGCA 60
 GTCTCTGAAG TCATTGTGA GCTTGTATGA CTTTGTATT TAGCAATGTT GCATGCTCAC 120
 ATAATTGAAA ATTAAAAGTA ACACATTTT CTGAAATGTA AA 162

SEQ ID NO:3756

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04416

SEQUENCE DESCRIPTION:

GATCAAAACA TAATTGTTTT AATTCTACAG CTGTAGGAGC TTTGTATTGC TGAACCTTCA 60
 TCTGGAAAAG TTTCACAGTG ACATTTTAA AAGAGAATTT TTTTATCTGC CGAATTCTAC 120
 CAGTGTAAAC TTTTNTTAA ATAAACAATA GTTTNTCAA A 161

SEQ ID NO:3757

SEQUENCE LENGTH:160

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04417

SEQUENCE DESCRIPTION:

GATCTCAAGA AGCCCCACAT CTTCTAAGG GGCCCCATGG CCTNNTTTGG GNGCAGGGTA 60
 GGTCTGGGG CACTGTGGGC CGCCTGCCTG CTGATGTGGG CTCTAGGCCA GCTTGTGTGTC 120
 ACGTACGTGG TGTGAAATAA AGCCCAAGCA CTNGNTGAAA 160

SEQ ID NO:3758

SEQUENCE LENGTH:160

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04418

SEQUENCE DESCRIPTION:

GATCCTGGGT GACTTTGGGT GCACAGGGTG ACCGAGCATT TCTGCCCTG TGAATGTGGC 60
 ACTAACACTG TGCACTGTCT CCACCAAANA AGGTTTCCAC TGAGTTTCTT CTCATGTTAC 120
 TGGGTTTGTG AATGAATAAA CACATTTTAA CTA CTACTCTAAA 160

EP 0 679 716 A1

5 SEQ ID NO:3759
 SEQUENCE LENGTH:158
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04419
 SEQUENCE DESCRIPTION:
 10 GATCAATAAG AAGANCCTAG TCTAGAGACA ATGATGCTAG TTTGCATATG TTTTCCTATG 60
 CAATAGTTGT TTTCCAGTN ATNCAAAGCA GCTTTCTATA TG TAGAGATG CAAATNATTA 120
 AGTTGTTNCC AATACAATAA ATAAAAGCAT CNGTTNTN 158

15 SEQ ID NO:3760
 SEQUENCE LENGTH:158
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04420
 SEQUENCE DESCRIPTION:
 20 GATCAGATTT GTAATTTNCC TGTATTAAAT GCCTAGAACT CTACAGTCAA CAGATGGCGC 60
 TCTAGTTCCA ATTGTNACAG AAGTNCCTCG CCCATCCGCA AGCAAAGCGT TGTTTTCATC 120
 AGTGAAGA GAATAANCAC TGTGCTTTAA CTTTTAAA 158

25 SEQ ID NO:3761
 SEQUENCE LENGTH:290
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04421
 SEQUENCE DESCRIPTION:
 30 GATCTGTATG GTACTATAAA ATACTATTT NATAACTCTG TAACCGTATG GCAGTGTTAT 60
 GCCAAAAATG TATAAGAGC AATAGTTTT GTTGCTTACT GCTGTATTT AAAATATTGT 120
 TTCTAAAATA ATAGNGTTAG AGTTCCTTT GAGTAATTAT TTTAAGGAC TATTGCCAAA 180
 35 TATACATCCT GTAAACCTA ATAAAGCCA CTCCATCTTT NGGTAACCAT TTAGCATTT 240
 GTGCTTGNG TACATNNTGG GTGGTTTTG CNCGNTTAAN NANNTTANN 290

40 SEQ ID NO:3762
 SEQUENCE LENGTH:158
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04422
 SEQUENCE DESCRIPTION:
 45 GATCCCACCC TCTNTCCAC CTGGGCNACT GACGCTCTGG CCTCTNTGGN AATNACACTG 60
 GGCTGACCTG GCATTGGGAG AGGGAGGGAG GAAGGAAGGG AGGGAGGGC TGGAAGATAC 120
 TGAAGGATTC CTTTTNAAA GGTTTTTTTT ATTGTAAA 158

50 SEQ ID NO:3763
 SEQUENCE LENGTH:157

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04423

5 SEQUENCE DESCRIPTION:

GATCCAAGTC CCCTGCCTGG TCCCCACAA GGNCTCCCAT CCAGGCCCC TCTGCCCTGC 60
CCCTTGTNAT GGACCATGGT CGTGAGGAAG GGCTCATGCC CTTATTTAT GGGAACCATT 120
TCATTCTAAC AGAATAAACC GAGAAGGAAA CCAGAAA 157

10

SEQ ID NO:3764

SEQUENCE LENGTH:157

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS04424

SEQUENCE DESCRIPTION:

GATCATTTTN CATCTGTNCA TAGCGTTTCT NCAGAAGGAA CAGTAGTCTC AAATCTTTCC 60
TCATAATGAT AACAAAATGC TCTGTCATGA TTTNTAACA ATATATTTAA NCAGGAAGTT 120
GTCAGTGATA TACTTTATTA AAAGGATTTT AATCAAA 157

20

SEQ ID NO:3765

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

25

TOPOLOGY:linear

CLONE:HUMGS04425

SEQUENCE DESCRIPTION:

GATCGTGTGT TGCCATTNG TCTGGCTGTG GCCCCTCCTT CTCCCCTCCA GACCCCTACC 60
CTTTCCAAA CCCTTCGGTA TTGTNCAAAG AACCCCTC CCAGGAAG AACAAATATN 120
ATTCTCTCT CCCAAATAAA CTCCTTAACC ACCTAGTCAA A 161

30

SEQ ID NO:3766

SEQUENCE LENGTH:156

SEQUENCE TYPE:nucleic acid

35

TOPOLOGY:linear

CLONE:HUMGS04426

SEQUENCE DESCRIPTION:

GATCTTGAGG TTGTTTGATG CTTAAATTT TTNAATTATA TTATTNNTA GGTGTTTATT 60
GGTACATTGC AGTTTTTTT TTNAATTATA AAAATTTCTG TAAACTTTG TTTCAAGTA 120
ATCTGACAGC ATTAAATATT GCATTAAAA ATTAAA 156

40

SEQ ID NO:3767

SEQUENCE LENGTH:155

SEQUENCE TYPE:nucleic acid

45

TOPOLOGY:linear

CLONE:HUMGS04427

SEQUENCE DESCRIPTION:

GATCCGCAAG AACAAGTACC GCCCACCTG CGCNGGCAGC CATCCGCAGG CCAGCGCATC 60

50

55

EP 0 679 716 A1

CTGCGACAGA AGCCTGTAAT GGTAAGAGAA GCGACCCGCC CACCAAGAGT CCTGAGCCCC 120
TGCCCAGAGA ATAAAGCAGC TGGCTTTCTA CCAAA 155

5 SEQ ID NO:3768
SEQUENCE LENGTH:155
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04428
SEQUENCE DESCRIPTION:
GATCCCAAAA CATCATNAGG CATTTTNAAG TTGGTCACGT CGCAAGTCCG ATATCACAAC 60
TTAATTGTAA AAGGAGGGAA TCTGGTTTTG TNACTGGCA GTGGTTTTTT CTCACCCTTC 120
CTTTTAAACA ATAAATCCC ATTTGGGTCT TGAAA 155

15 SEQ ID NO:3769
SEQUENCE LENGTH:155
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS04429
SEQUENCE DESCRIPTION:
GATCTATTG ATAATTTTNT GGGTTTTTTG AAGAATTAAT GAGCATGTAC ATAGAAATAG 60
TGACTGCTTG ANTACTGTAT TTNCTTGAC TCTTTCAGTA CATCAAGATT CCTGTATATN 120
25 TNAGNGTATA ATAAAACACA GATGTGAGTT GTAAA 155

SEQ ID NO:3770
SEQUENCE LENGTH:153
30 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04430
SEQUENCE DESCRIPTION:
GATCGGCACA AGATGCTCAG CTAGATGGGC TGGTGTGGTT GGGTCAAGNN CCCAACACCA 60
35 TGGTGCCAG CTTCCAGGCT GGACAAAGCA GGGGGCTACT TCTCCCTTCC CTCGGTTCCA 120
GTCTTCCCTT TAAAAGCCTG TGGCATTTTT AAA 153

40 SEQ ID NO:3771
SEQUENCE LENGTH:153
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04431
45 SEQUENCE DESCRIPTION:
GATCTGAAGT GTGAGTAGAA TGTATTCAGC TGTTTAACAT GTAGTTTGA TATCAAAAG 60
TATGCATGTA GAGTTTAAAG AATATGTAA AANTNATTAA TTTTAATATT TTGTTTGGA 120
AAGCATGTTA TAATATAATG TTTTCACTAT AAA 153

50 SEQ ID NO:3772
SEQUENCE LENGTH:152

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04432

5

SEQUENCE DESCRIPTION:

GATCTGGNAC TCCTTGTAGT AAGCTGTTTT CTGCTCAGCC ACTGGGCTCT TTCACITTTT 60
TAGTTCTTAA AAATTTATTT TTAAGTTCTA AAATAAAATA AAAATAAGTT CITAAAATTT 120
ATTTTTTTCC NGAATAAAAT GTATTGGTA AA 152

10

SEQ ID NO:3773

SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS04433

SEQUENCE DESCRIPTION:

GATCGCAAAT CACAGCTCAG ACAGCCAGCT CTTAAGTGAG ACCTGAGTGC CAGAGAGGGG 60
TGGATACAAG GCCAACAGTT ACTAAATGAA TGAAAATTGT GATTCCGATG AAGCCTGCCA 120
GAGAAATAAA GCATTTTTTA AAAGATGGAA A 151

20

SEQ ID NO:3774

SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

25

TOPOLOGY:linear

CLONE:HUMGS04434

SEQUENCE DESCRIPTION:

GATCTAGCCA TAAACTAGT AATCTTGAAT TCCTCTTGAG CTGGATGGTG ATTAGCCATT 60
GTGAAAACAG ATTATATGGA AATTGTGCAT ATTGCTAAAT TTAAAAACAT GGATTATCA 120
ACTGATAATA AAATATATCT TACAAGATAA A 151

30

SEQ ID NO:3775

SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

35

TOPOLOGY:linear

CLONE:HUMGS04435

SEQUENCE DESCRIPTION:

GATCTTTAGC TGCCTTTGTA TCAACTTCTN TGGAGCTTAT GTGATTTTCC AGAAAATATC 60
CAAGGCATAG TTTTGTCCCT AAGTCCCATG AATATGTAAT ATNTNGTGTC TCTCTATTAA 120
AATAGCACTT TTNGTGCATN CCATTAACAA A 151

40

SEQ ID NO:3776

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

45

TOPOLOGY:linear

CLONE:HUMGS04436

SEQUENCE DESCRIPTION:

GATCCATCAA AAGGTTCTTT TTNATAATC CCTTTTGAAA ATAATAATCA AAGGAAGAGA 60

50

55

TGTGGTGTTT GGTCATGTGG AAAACTCAAT GTATAATTAA GACGTCTNTC AAAAATCCGA 120
 CAAATAAAAT NAAGCTGGAA CGAAGGCAAA 150

5 SEQ ID NO:3777
 SEQUENCE LENGTH:146
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS04437
 SEQUENCE DESCRIPTION:
 GATCCNAAAG CACACCAGGA AGATGCTAAA GATGCTTATA CTTTCCTCA AGAATTGAAA 60
 GAAAAACCCA AAGAAGAGCC AGGAATACCA GCAATTCTGA ATGAGAGTCA TCCAGAAANN 120
 NNGTCTATA GTTATGTTT GTTCNN 146

15 SEQ ID NO:3778
 SEQUENCE LENGTH:168
 SEQUENCE TYPE:nucleic acid
 20 TOPOLOGY:linear
 CLONE:HUMGS04439
 SEQUENCE DESCRIPTION:
 GATCAGAGAA GTTTATGCTC ACTGTCTGAT GCAACTNTCT GGTCTATTG TNAGTAAATA 60
 25 ACAGGGAAT CATTTTCACT TTTTGTAAA AATAAGGTAT TTACAAGCAT ACCTTGAGT 120
 TATTGTGGGT TCAGTTTCAG ACCACTGCAA TAAAGTGAAT ATCTCAAA 168

30 SEQ ID NO:3779
 SEQUENCE LENGTH:149
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04440
 SEQUENCE DESCRIPTION:
 35 GATCTGACCC ACCAGTTTGT ACATCACGTC CTGCATGTCC CACACCATT TTTTCATGACC 60
 TTGTAATATA CTGGTCTCTG TGCTATAGTG GAATCTTTGG TTTTGCATCA TAGTAAATA 120
 AAATAAACCC ATCACATTG GAACATAAA 149

40 SEQ ID NO:3780
 SEQUENCE LENGTH:144
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04441
 45 SEQUENCE DESCRIPTION:
 GATCGGGACC TGACCTGGGG CTGGCCTCAG GCCCACGTGC ACGTAACTGC CCTCTGTGGA 60
 AGCCAGCTTA AACCTAGCC CTNTNAGAGC TTCCTGTGCC CAGCAGGAAG GAAGTCAAAT 120
 AAACCACACT GACTACCTGT GAAA 144

50 SEQ ID NO:3781
 SEQUENCE LENGTH:144

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04442

SEQUENCE DESCRIPTION:

GATCTAGGGG GAAAGAGGAG CATTATCAC AAGTTTCCTA GAGAGAGGAG ACAAATCGGT 60
GTGCCATTGA CAACATGAGC CAGGGTAAAG GCACCCTTNN NNNTTACTGA TTTCAAAGAT 120
TAATAAAGTA ATTCTATTTT TAAA 144

SEQ ID NO:3782

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04443

SEQUENCE DESCRIPTION:

GATCTATGAC TCATTTGACA GAGAAGCCAA GGAAAAAAG CTTGCTTGGC CCATTAAGTC 60
AAATCCACCA AATACTTTTG TCTAAGTTCT CATTCTTTCA ATTGTTATGC ACCAGAGATT 120
AAAAAGCTTT AACTATAAA 139

SEQ ID NO:3783

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04445

SEQUENCE DESCRIPTION:

GATCTGTGTC TTGAAGCAGC TGCCCTCATT CCGACTTCAG AAAATCGAAG CAGCTGGCTC 60
CTCCCCTTGT TCTCTCTCCC ACCCTCCCCC AAATCTGTTT TCATGTAAAA GACAAATAAA 120
TGATGACTTC CCCCCAA 137

SEQ ID NO:3784

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04446

SEQUENCE DESCRIPTION:

GATCAAAATA AAAATGTACA TGACGGGGAA GGGAAAAACC TGTGGAGTT GCTTCCAGCC 60
AGCCACGCTC CGGGCCAGCA TGTGGAATC CAGCGTGGAG CAGATGCAGT AAAAAATATGG 120
TTGTTTCTG TGTGAAA 137

SEQ ID NO:3785

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04447

SEQUENCE DESCRIPTION:

GATCTCTCTC TCNTTTTACC CCCCTTAGGC TGAGGGTAAA AAGCTGGGAT TGGTAGGCTG 60

GGTCCAGAAC ACTGACCGGG GCACAGTGCA AGGACAATTG CAAGGTCCCN TCTCCAAGGT 120
GCGTCATATG CNGNNNN 137

5 SEQ ID NO:3786
SEQUENCE LENGTH:133
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04448
SEQUENCE DESCRIPTION:
GATCGGCCAA GTATGCTNTT NTTTAGAGCA ATGTTTTGCC CTAGAGANTT GTAAAATTTA 60
TGTNATGACT CAGTACATAT GTGTTCTGAC ATATATGATN GGAATAAAAT GTTTATGAAA 120
TATTNACTCA TAN 133

15 SEQ ID NO:3787
SEQUENCE LENGTH:132
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS04449
SEQUENCE DESCRIPTION:
GATCTGTGTG ACCTCACCTG CATTGATTG AAAAAAGTAT GCGCGTAATT GTACCCACCC 60
25 AGTTCAAACC CGTGTGTAAG GGTCAACTGT ACAAAAAAGT TTGTGAAATA AACGTACTGG 120
AGAATCTTTA AA 132

SEQ ID NO:3788
SEQUENCE LENGTH:130
30 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04450
SEQUENCE DESCRIPTION:
35 GATCAGTATT TAANATTATA CCAGTTTTNA TTAAACCCTT TCCCTCCCGG ATAAAGAATG 60
TTCTATTCTT GCCTCCCCTT AAAGGGGAGA CCTCAGAAGT AAAGNAATTT NATGTTGTGT 120
TTTTNTTAAA 130

40 SEQ ID NO:3789
SEQUENCE LENGTH:129
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04452
45 SEQUENCE DESCRIPTION:
GATCCCCCTT CACCTTTTGC CATGGTCATA AGCTTCCTNA GGCCTCCCTG GAAGCTGAGC 60
AGATGCCAGC ACCATGCTTC CTGTACATCC TGCAGAACCA TAAGCCAATT AAACCTTTTT 120
AATAATAAA 129

50 SEQ ID NO:3790
SEQUENCE LENGTH:129

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04453

SEQUENCE DESCRIPTION:

GATCCNCCAT GGTGGACACG TCTGTNCTGT ATGTAAAAGG CATTACAAAT GTTTTTTAGC 60
AGATGAGACT TGAAGCCTTT CCACAGTCCT TGTNCTCTGA GATGGCTGTN GAGCTCTGCT 120
CANCTGTTN 129

SEQ ID NO:3791

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04454

SEQUENCE DESCRIPTION:

GATCCCTACC CCTCANCAAC TAGTCCCCT GTCGGCCAGC TAAGAGAGCT GGGACANTGG 60
AGGCTGGCAG AAGCTGAGAC GTGACTGTCT AGGAGTAACA CTCATTAAAG CTTTCNTTTT 120
GGCAAA 126

SEQ ID NO:3792

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04455

SEQUENCE DESCRIPTION:

GATCTGAAAA AGCAACCCAT TTCCTAAATT CATATTTTNC CTAAACTTT ACTATGTTTT 60
NATTTTAAGA GGTTCCTGT TATATACACT TTNACACAT GCAAATAAAC TTTATACCAA 120
GTGAAA 126

SEQ ID NO:3793

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04456

SEQUENCE DESCRIPTION:

GATCTGTTTA GAAAATACCT TTGAAAACGA GGGTAACTTT AAAAAATGGA AACTTTCAAA 60
TCCATTATA TTTNNTTAT AANCAAACT TAATTAAAG TTTAACAAAC TGGCTGAAAA 120
CTCAAA 126

SEQ ID NO:3794

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04457

SEQUENCE DESCRIPTION:

GATCACTGAG CTGCCNTCA AGGGGACCTG GANNCCGGGT CCTGGGGTCA TGCTGCCTCC 60

EP 0 679 716 A1

NAGGCTCCAA GGTGAGGGTC ATCTTCACGA GCAAAGAGAA CCAATAAAGT GACAACGNAC 120
GTCAAA 126

5 SEQ ID NO:3795
SEQUENCE LENGTH:123
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04460
SEQUENCE DESCRIPTION:
GATCCAGGGC TTTCGAGGCC TCTCCTCATT GAGTTCAGAG TCACATATCA GAGGNTTAA 60
TCCAAAAGAA ATATGCACAC CCCTCTCCTC CCTCCCAGTA AAAATAAATC GCTCCTCTTG 120
AAA 123

15 SEQ ID NO:3796
SEQUENCE LENGTH:125
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS04462
SEQUENCE DESCRIPTION:
GATCTCTGTG CTGTAACTA AAACAAATTG TGCATTTCCTT CCGGGGCCAT CGTCTTTGTT 60
25 TTCTTTTGTG TCTTGAATGA ATTTTAAAG GAAATATATA ATAAAAATGT TAACCAGAAG 120
GTAA 125

30 SEQ ID NO:3797
SEQUENCE LENGTH:119
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04463
SEQUENCE DESCRIPTION:
35 GATCTGGGGG CCCCCCAGC TGGCGGGAAC CCCAAATGGA CACAACTGT ACATTGCCA 60
ATGGGTTTTT TTCAGACCAT GGTTTTACT TGCAAATAAA CCTGAGTTCT TTTCTGAAA 119

40 SEQ ID NO:3798
SEQUENCE LENGTH:133
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04464
SEQUENCE DESCRIPTION:
45 GATCTAAAA NATACTNTGT TCCCTCATAT GCATGCCCTT CCTTCTATA TCCTTGACAC 60
CTTACTTTCC CATTGTAACA ATAAAAAAG TATCAATAAA ATAATTATTG GCAAATAAAT 120
TGGTGAGTTG AAA 133

50 SEQ ID NO:3799
SEQUENCE LENGTH:119
SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04465

SEQUENCE DESCRIPTION:

5 GATCCTGCAG TGATGGAATG TTCTGTCTTG ATTGTAGCAA CACCAATATN CTGATTGTNA 60
TATTATACTA TAGTTTTGCA TAACAGTTAC CATTAAAGGA AATTGGGTAA AAGGCTAAA 119

SEQ ID NO:3800

10 SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04466

SEQUENCE DESCRIPTION:

15 GATCTCTTAG CAAATAGGAA TCTAGGTGTA GAATTTATAC ACATATATAT TTTTAAAAGT 60
ATAAAAATGA GAAAGTATGT ACAAAAAATC ATCCTAAATC TTAGAAAGGA GACATAAA 118

SEQ ID NO:3801

20 SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04467

SEQUENCE DESCRIPTION:

25 GATCTGGGAG CCAGCAGCTG GATGCTGTGG CTGGCCAGAN ACACCTCCAG GCTGTGGCCT 60
GGGGGCTGGG GGGAGCCCCA GGCTGAAAAG GGTCCAATTA AAACAAATGG AGCCAAA 117

SEQ ID NO:3802

30 SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04468

SEQUENCE DESCRIPTION:

35 GATCACATTC CAGCCCTCGC TGCTGGGGTG CACACCCCTT CCTTAGNTGA TGTGCTTGGG 60
AAACTCCCTC CCCCTCCTTC CCAAGAGAGA AATAAANCA CCTTCGCCTA GGNCAAA 117

SEQ ID NO:3803

40 SEQUENCE LENGTH:116

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04469

SEQUENCE DESCRIPTION:

45 GATCCTGACC TCCTCCAAGG AAGAAATCCA GAAAGCCTTA AGACTAAGAC AACTTGACTC 60
TGCTGATTCT TTTTTCCTTT TTTTNTTNN AAAANAAAAA TACTATNANC TGGAAA 116

SEQ ID NO:3804

50 SEQUENCE LENGTH:115

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04470

SEQUENCE DESCRIPTION:

5 GATCAGAACT CCAAAACCAC TCCCACCCCT GAAGGTCGGG AGGGTCTGAG CAGCCCTGGT 60
GGCTNCTTGT GCTCAGGTCC TCAGCTCCAT GGGAAATAAA AATGGCACCC TGAAA 115

SEQ ID NO:3805

10 SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04471

SEQUENCE DESCRIPTION:

15 GATCAACATA TTTAGCTTAT ACAGAAATAA AATTAAGTCA ATCCACTCAC AAAGAATTC 60
TATTTTGTA AAATGTAGCT TGTATTTCAG TATAATAAAA TCTGATGTAA GAAA 114

SEQ ID NO:3806

20 SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04472

SEQUENCE DESCRIPTION:

25 GATCANAGCT NTCCCAAAGA GGGAAAGCGG TGAGGTTTNA GGAGGGGCAG AAGCAGGGCC 60
GGCAAAGNTT GTACCTNCAT AAGGTGTAT GGGGGGTTGG GGTGAGGCC TGAN 114

SEQ ID NO:3807

30 SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04473

SEQUENCE DESCRIPTION:

35 GATCGAAAGA CTCAGGGAGA GCGGTCTTNA CCACCTGGAA GTAAGTCCA CCTGGACCTT 60
ATNAAAATA CTCACTCCAC CTGGGCCCCCT GCTGAAGCCN NNTTTAAAA TN 112

SEQ ID NO:3808

40 SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04474

SEQUENCE DESCRIPTION:

45 GATCTGTTTC GTGCATTGGA AGACCCACCA CAAGCTTGGC ANACTAANTN TTGTATCCTG 60
GGGCTCCNT CATCTCCAGG GAGACCAAAC CCCGGCCCTA CCAGNGCCCG N 111

SEQ ID NO:3809

50 SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

55

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TOPOLOGY:linear
 CLONE:HUMGS04476
 SEQUENCE DESCRIPTION:
 5 GATCAAGACT AACAAATAAC TTTGTGATGA AAATNCTTCA AAAATATAGC TACTCTTTTC 60
 AAGTATACCA TTAAATATAT TTCATCAGGC AGAGCCCTGA CCAGGAAA 108

 SEQ ID NO:3810
 10 SEQUENCE LENGTH:108
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04478
 SEQUENCE DESCRIPTION:
 15 GATCAAGAAN ANTNAGGACA ACGAGAAAGT TTAAAAGTTC GAAAGCAGCA AGATNCCTTT 60
 CCCCCTGGT CAATCNCTGA CACAAGAGAA GGCAGAGACC CTGAAGCN 108

 SEQ ID NO:3811
 20 SEQUENCE LENGTH:182
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04482
 SEQUENCE DESCRIPTION:
 25 GATCTTCAAG CAAGGGAAAT GATTCTTAAA AGGATTATCT GAAATTGAAA AACTAGTAAG 60
 CAAATAAATG ATAAACATAA GTAAATTTAA NCTGTTGTTT GTATAAAACA ATTATAATGA 120
 NGTGTTTATA AGANATTGTA AACAAATGTA AANCTAAATN ANCATTGTTA TGCAACATTA 180
 AA 182
 30

 SEQ ID NO:3812
 SEQUENCE LENGTH:105
 SEQUENCE TYPE:nucleic acid
 35 TOPOLOGY:linear
 CLONE:HUMGS04483
 SEQUENCE DESCRIPTION:
 GATCTCCCCA AACTAAAAAG TACAGTACTT GGAATTGTGT TCTTTATGGT TGTAAGTGTG 60
 GTAAAGCACT AATATGCAGA AAATAAAGGA ATTACACAGT GCAA 105
 40

 SEQ ID NO:3813
 SEQUENCE LENGTH:105
 SEQUENCE TYPE:nucleic acid
 45 TOPOLOGY:linear
 CLONE:HUMGS04484
 SEQUENCE DESCRIPTION:
 GATCCNAAGC AGTGAACATG CTGTTAATAC TTGTAAGACT CCTAGCAAAC TGCATTTAAT 60
 TTTTAAATT AGTTTATAGT TACATAAAGG CATGTNTTTN CCAA 105
 50

 SEQ ID NO:3814
 55

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04485

SEQUENCE DESCRIPTION:

GATCCATGGG ATTNATAATT GAAATAGAGA TTGGAGACCC TCCTATTTCAN TTCATAAGCA 60
ATNGCACCCAC AGGTCANATG CAGTTATCTN AACTCCAGGA AATTN 105

SEQ ID NO:3815

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04486

SEQUENCE DESCRIPTION:

GATCTTGCTA AATTATTAGT TCTAGTAGCT TTTTGTAGA TTCATTAGGA TTTTNTACAT 60
ACACAATCAT GCTATTGCA AATAAAATAA TGCTTTTATC CAAA 104

SEQ ID NO:3816

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04487

SEQUENCE DESCRIPTION:

GATCGAGTCC AAGGNAGACT ATGTCCTCTN CTACCAACGN CAGGNCGTGG CGCGACGCCT 60
GCTGTCCCCG GCCGGCTCAT CTGGCGCCCC AGCCTCCCCT GNCN 104

SEQ ID NO:3817

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04488

SEQUENCE DESCRIPTION:

GATCAGCACT GTGGTGAGCT CCAAGGAAGT GAATAAGTTT CANATGGCTT ATTCAAACCT 60
CCTTAGAGCT AACATGGNTG GGCTGAAGAA GAGAGACAAN NNN 103

SEQ ID NO:3818

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04489

SEQUENCE DESCRIPTION:

GATCCCAAAC CTNAGCTCAA TCAGTATTGC CAGANAGGGG TAAGACTGGT TGGAAAGCTGA 60
CTGCAGACTT NNTTCCCCT TAGTATGTNC TGTGTTGTAA ATN 103

SEQ ID NO:3819

SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04491
SEQUENCE DESCRIPTION:
GATCACTAAG CAAAGCTGCT AGTGGGATTC TATATTTTCGT GTCATCTTTT TTATNATAAT 60
NTATTGCAAA TATTTTCTG AATAAATATA TGTTGTGTGA AA 102

10 SEQ ID NO:3820
SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04492
SEQUENCE DESCRIPTION:
GATCCTGCCA CCAGGGTTNT TTTGAAATAG TACCACATGT AAAAGGGAAT TTGGNTTTNA 60
NTTCATCTAA TCACTGANNT GTCAGGCTTT GATTGATAAT TN 102

20 SEQ ID NO:3821
SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04493
SEQUENCE DESCRIPTION:
GATCTTGTC AATCGGAAAC CCCCCTTACC TCCTCTTTT CTTTCTCTT CTTTTTTTTT 60
TTTAACTNAA ANATTTTAT GATGATTAAG ANGGAAGTNG TN 102

30 SEQ ID NO:3822
SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04494
SEQUENCE DESCRIPTION:
GATCCCAAAC ACTCNATCCT GTAAGNCGGG TACAGTCCTA TTGTNTGTTN NCACACTGAT 60
GATGTGAGCC TGTGAGATGA GCCAATCACC AGTTGTTATG TN 102

40 SEQ ID NO:3823
SEQUENCE LENGTH:101
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04495
SEQUENCE DESCRIPTION:
GATCTCATGT ACTGAAAAA AATTCTTAAT TTTATTGGAG TTTATACCAC TGTGAAACTG 60
CAATATGACT GTAAGAGAGT AAAAAGATTG TNACATCTAA A 101

50 SEQ ID NO:3824

SEQUENCE LENGTH:101
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04496
SEQUENCE DESCRIPTION:
GATCTGGGAG TCTGAAATGG TAGCNTTTTG TCCCTGTCTT CACACTATCA TAGGGAGAAT 60
CAAAAGANCT AACAAATATA ANCATGCTTT GTGAATNNCC N 101

10
SEQ ID NO:3825
SEQUENCE LENGTH:100
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04497
SEQUENCE DESCRIPTION:
GATCTNTTTT NTNTCTATTT TTTGAGGTAC ATGCTACATA CATTTTNTNT GTAAACAACT 60
ATTTAGCATA TTGAATAAAA TAACATTTTA AAAATAGAAA 100

20
SEQ ID NO:3826
SEQUENCE LENGTH:97
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04498
SEQUENCE DESCRIPTION:
GATCCCACGG CNAACACTCA CCACNGGCTA CCATACGCCN TCCCAGAGCT AGGGGCTGCC 60
TTAAAGGAAA TTGTAGCCTA AGTAGGTCAT GGCAAGN 97

30
SEQ ID NO:3827
SEQUENCE LENGTH:96
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04499
SEQUENCE DESCRIPTION:
GATCAGCCAC ATCAACTCAG TTGTCCACCA CAGGGGAATT TTNAATGTCT TTTGTTTTTG 60
TNTTGTTTTG AAAATAATA AACAGGCAAC TGTAAG 96

40
SEQ ID NO:3828
SEQUENCE LENGTH:95
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04500
SEQUENCE DESCRIPTION:
GATCTATTTG GCCTCTCAA TGAAGTGA TCCCTGTAA AAAAGATTGA TGTTATTGTC 60
TCTTGTAGAG GAAACTAATA AAGCTGCAGG NGAAG 95

50
SEQ ID NO:3829

55

SEQUENCE LENGTH:94
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04501
 SEQUENCE DESCRIPTION:
 GATCTATCAT AATTGCTTTT CTGATGCATT TAAAAATAAA TGGAACACTT AAATGTATAT 60
 TACCGATGCA AACTGTGGAT AAAGTTGAAA GAAA 94

SEQ ID NO:3830
 SEQUENCE LENGTH:94
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04502
 SEQUENCE DESCRIPTION:
 GATCACAGGC CTGGCCGCGG TAACAGACTT TTACATGGAA TTGTTTAATT ATTTGTACTT 60
 TTCATGCCAG AAAATAAAAG TTCAGAATCT TAAA 94

SEQ ID NO:3831
 SEQUENCE LENGTH:94
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04503
 SEQUENCE DESCRIPTION:
 GATCACTACG ATTAACGACG GTCGTAATGT TAAGACGTCG TCTCCATGAN CTTTGGGGGG 60
 ACTTTAATNT GGAATAAAGA AACTATCACT NAAA 94

SEQ ID NO:3832
 SEQUENCE LENGTH:93
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04504
 SEQUENCE DESCRIPTION:
 GATCCAGATN AAGTGCTGAA GAAAAGAAAA AAGAAGTGA GAAGAGTATG NTTATNCTTC 60
 TCCTTATTAA AGAAATTTC TCAAAACAGC AAA 93

SEQ ID NO:3833
 SEQUENCE LENGTH:88
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04506
 SEQUENCE DESCRIPTION:
 GATCTATCCA GTGACGTGGC CTGGTGGGCG TTTCTCCTTG TACTTATGTG GTTTTTTGGC 60
 TTTNAATACA GACATTTTCC TCCAGAAA 88

SEQ ID NO:3834

SEQUENCE LENGTH:86
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04507
SEQUENCE DESCRIPTION:
GATCCCAAAA TATGGTAAAG TGAACCCATC TGTCTGCATT TTCTACTCTG AGCCCATTTG 60
TTAATAAACA CTTATTTTTA TATAAA 86

10
SEQ ID NO:3835
SEQUENCE LENGTH:84
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04509
SEQUENCE DESCRIPTION:
GATCCGGGCC CCAGGCTGCT GCCGCTTTTT ATAACCTTAT ATTATTTTN TTTAAGAAA 60
AAAAGCTCTT TAAATACCT CAAA 84

20
SEQ ID NO:3836
SEQUENCE LENGTH:82
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04510
SEQUENCE DESCRIPTION:
GATCTGAGGA GCAAACCTCC GTGGCACACA TTTACCTGCA TAACAAACCT GCACATCCTG 60
CATGTGTACC CCAGAACTTA AA 82

30
SEQ ID NO:3837
SEQUENCE LENGTH:81
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04511
SEQUENCE DESCRIPTION:
GATCCAGGAG GCTCAAAGAG AAGCCAAGTC AGCTTTGTTG TGATTGATT TTTTTAAAA 60
AACTCTTGTA CAAAACTGAA A 81

40
SEQ ID NO:3838
SEQUENCE LENGTH:81
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04512
SEQUENCE DESCRIPTION:
GATCGCTACT GTTATGTGGG ATTATTATTT CTAAATNTTA CTCATTGAAA TAAGCATACA 60
ATAANANGCA TTTATTGCAA A 81

50
SEQ ID NO:3839

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SEQUENCE LENGTH:80
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04513
 SEQUENCE DESCRIPTION:
 GATCAAAACA AGACCCAGCT TATTTTCTGC TTGCTGGTAA ATTAAGCAAA CATGCTATAA 60
 TAAAAACAAA ATGAAGGAAA 80

SEQ ID NO:3840
 SEQUENCE LENGTH:78
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04514
 SEQUENCE DESCRIPTION:
 GATCTGGTTG AAAATTGTAT TTCTATGTAA ACTCAACGAT ATGTTTGGTT TTCCTGAAAA 60
 TAAATAATTT TAAATAAA 78

SEQ ID NO:3841
 SEQUENCE LENGTH:75
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04515
 SEQUENCE DESCRIPTION:
 GATCCTCACA CCTCAGCGTC CCAGAGTGCT GGGATTACAG TTGTGAGCCA CTGTGCCTGG 60
 CCTTTTTTTT TTTN 75

SEQ ID NO:3842
 SEQUENCE LENGTH:74
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04516
 SEQUENCE DESCRIPTION:
 GATCAGAAAT CTGAGGTCA ATGAGGCCAG AATAACTCAG CTTCAAAATG AATAAATGTG 60
 GAAGCCAGCA CAAA 74

SEQ ID NO:3843
 SEQUENCE LENGTH:72
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04517
 SEQUENCE DESCRIPTION:
 GATCTCCCT TGGACTGATA CCCTTTTCCC ATTCATTAC AAATAAATTA CAATGGGTGC 60
 TGAGAACTTA AA 72

SEQ ID NO:3844

SEQUENCE LENGTH:78
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04518
SEQUENCE DESCRIPTION:
GATCTGTGTC ATGGTTTAT AACCTTTNTN TTTTGTAAG CTTGAATGTT CAAAATTAAC 60
ATGCTGTTA CTCTGAAA 78

10 SEQ ID NO:3845
SEQUENCE LENGTH:71
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04519
SEQUENCE DESCRIPTION:
GATCAGGAAG AACTAAACAA AACCCACACT CCAAAAATA ACAAAGAATA AATAAATAAT 60
ATAAAAATAA A 71

20 SEQ ID NO:3846
SEQUENCE LENGTH:71
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04520
SEQUENCE DESCRIPTION:
GATCTCAGAA CAGANTTAA ATATTGTGAA AATTACAGCT TAATAAATGT TTATTGTAAT 60
TTTNTTGTA A 71

30 SEQ ID NO:3847
SEQUENCE LENGTH:69
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04521
SEQUENCE DESCRIPTION:
GATCTAGGAC TTGCCTTATT TTATCATTTT TCTTTAATAA TCTCCAATAA ACTTTCTTTA 60
TTCATTAAA 69

40 SEQ ID NO:3848
SEQUENCE LENGTH:69
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04522
SEQUENCE DESCRIPTION:
GATCACCCT AAAGAACTTA CTCATATAAC CAAATACCAC CTGTNCTCCC AAAAACCTAT 60
GGAAATAAA 69

50 SEQ ID NO:3849

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SEQUENCE LENGTH:69
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04523
SEQUENCE DESCRIPTION:
GATCAGTATG CTGTTTAAAT AATTATGTGC CATTTTAATA AAATGAAAGG GTCAACGGCC 60
CNNTTTAAA 69

10
SEQ ID NO:3850
SEQUENCE LENGTH:67
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04525
SEQUENCE DESCRIPTION:
GATCTACACT GATGATTAAA TCAAATTGGC TAAGATTATT CGTTCTAATA AAAGCACTGA 60
CTCCAAA 67

20
SEQ ID NO:3851
SEQUENCE LENGTH:67
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04527
SEQUENCE DESCRIPTION:
GATCTCTTCC TGTTTGTAC ATAGATTAT TTTTCAGTTC CAAGAAAGAT GAATACATTT 60
TGTNAAA 67

30
SEQ ID NO:3852
SEQUENCE LENGTH:67
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04528
SEQUENCE DESCRIPTION:
GATCTAGCAT ATGTATCTTT TTAAAGGTA TTGTTAATAA ATATNCTGTC ATTTGTAAAG 60
ATANAAA 67

40
SEQ ID NO:3853
SEQUENCE LENGTH:66
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04529
SEQUENCE DESCRIPTION:
GATCCATCTT CAAATCAAGG GTCCTCGGC TACCAAATNC TGTCTAGTAA AAATNATTCG 60
AGCAAA 66

50
SEQ ID NO:3854

55

SEQUENCE LENGTH:64
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04530
SEQUENCE DESCRIPTION:
GATCTATTCA ATGTACAAAA TATTTTGAAA GTTCTGTGA TTAAATGTNC TTTGAAAACA 60
TAAA 64

10 SEQ ID NO:3855
SEQUENCE LENGTH:64
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04531
SEQUENCE DESCRIPTION:
GATCTGTTAT NAACACCTTT GTTGGCTTGG TTCAGTAATA AATATGTNAG ACTTTTCATT 60
TAAA 64

20 SEQ ID NO:3856
SEQUENCE LENGTH:62
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04532
SEQUENCE DESCRIPTION:
GATCTGTGTA AGCTCTGAAT GAACTTCTTT ACTCAATAAA ATTAATTTTT TGGCTTCTTA 60
AA 62

30 SEQ ID NO:3857
SEQUENCE LENGTH:61
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04533
SEQUENCE DESCRIPTION:
GATCCAAGAT ACGTCATTTC TGTATTGGCA AAATGCCACT ATTAAAGTGT AATTCTTGAA 60
A 61

40 SEQ ID NO:3858
SEQUENCE LENGTH:60
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04534
SEQUENCE DESCRIPTION:
GATCTCAAGT GCTTAATGAT AAGGTGTTGA CTTGTAAAT TAAACCATTG GGAATACAAA 60

50 SEQ ID NO:3859
SEQUENCE LENGTH:60

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04535

5 SEQUENCE DESCRIPTION:

GATCAAATGC CCTAAATGT AGTGACCCGT GAAAAGGACA AATAAGCAA TGAATACAAA 60

SEQ ID NO:3860

10 SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04536

15 SEQUENCE DESCRIPTION:

GATCTGAGAC TTGAGTCTC CAGAACTGTG AGAAAATAAA TTTCTGTTTC TTAAGCCAAA 60

SEQ ID NO:3861

SEQUENCE LENGTH:60

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04537

SEQUENCE DESCRIPTION:

25 GATCTTTCCT GTCTTCCCA AGTTTGATT TCCGACATTA AAGTTTACTT TTNAGTTAAA 60

SEQ ID NO:3862

SEQUENCE LENGTH:59

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04538

SEQUENCE DESCRIPTION:

35 GATCAATCAG GGAGAAAATA CAGAAGAGAA TAAAAAGAGA CTCATTCACT GGAAGCAAA 59

SEQ ID NO:3863

SEQUENCE LENGTH:59

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04539

SEQUENCE DESCRIPTION:

45 GATCTGAATT AAGCTGTCTG CCATTTGGAG AAATTTAAAT ACTATTTTAA ACACACAAA 59

SEQ ID NO:3864

SEQUENCE LENGTH:58

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04541

55 SEQUENCE DESCRIPTION:

GATCCACCCA GGCCTTTCNG TGAATAAAA GCTCCCAAGT TGGGTACAAA CCAGGAAA 58

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5 SEQ ID NO:3865
 SEQUENCE LENGTH:57
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04542
 SEQUENCE DESCRIPTION:
 GATCCAGTC TGAAGGATTA TTGTGAAGAA TAAATGAGAG AATGTGTAAA TGGCAAA 57

10 SEQ ID NO:3866
 SEQUENCE LENGTH:56
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04543
 SEQUENCE DESCRIPTION:
 GATCTGTGTA TTGATTTTG TACTTTAAAT GTGACAAATA AACCTTTTGG GAGAAA 56

20 SEQ ID NO:3867
 SEQUENCE LENGTH:55
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04546
 SEQUENCE DESCRIPTION:
 GATCTAATTC TGAACACATT GTAATAAAAT AATNAGCTAT AATGGTATTT TCAAA 55

30 SEQ ID NO:3868
 SEQUENCE LENGTH:55
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04547
 SEQUENCE DESCRIPTION:
 GATCTCGAGC GTTTATCTCG GGCTTTAATT TGCTAAAGCT NTGCACATAT GTAAA 55

40 SEQ ID NO:3869
 SEQUENCE LENGTH:85
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04548
 SEQUENCE DESCRIPTION:
 GATCTGCCAT GCACTCCAGC CTAGGCAACA AGAGTGAAC CTGTCTCAAA ATAAAATAAA 60
 ATAAAATAAT AATAGTAATA ATAAA 85

50 SEQ ID NO:3870
 SEQUENCE LENGTH:52
 SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS04552

SEQUENCE DESCRIPTION:

5 GATCAAAGGT CATTGTGTA GATGAGTAAT TAAAAAATAT TTAAATCACA AA 52

SEQ ID NO:3871

SEQUENCE LENGTH:51

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04556

SEQUENCE DESCRIPTION:

15 GATCAAATAG AAACAGGGTT TGCAAGTNTC CATACAGATG CCTCTACCAA A 51

SEQ ID NO:3872

SEQUENCE LENGTH:50

SEQUENCE TYPE:nucleic acid

20 TOPOLOGY:linear

CLONE:HUMGS04557

SEQUENCE DESCRIPTION:

GATCCTATGT AAAATATATA TTTATGTATT AAAAATACTG AAAACATAAA 50

25 SEQ ID NO:3873

SEQUENCE LENGTH:443

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS04597

SEQUENCE DESCRIPTION:

35 GATCCTATTT TATAAGGAAT CTTTTTTATA CGAATGTACT TATTCTTTTA GATATCAGTT 60
 CTTGAATGTA TACTCCTTAT GATATACAGC AAGAGATTCT TGAGGTTCCTC AAGAATTGTC 120
 CTGGAAAAGAA AATTGATTTT GAATTGAGAT TAGCAGTGTT TTAATTTTCGC TGAGATAACT 180
 CCTTTAACTC AGCACTTTCA CAAAACCTTAA ATATTAAATA AATTGAATTT GAGGCTGGCA 240
 TTCTTCTCTA AATTGAATTG GACTGGTTGT TTGCTGAGGT ATGAATGGAG CAGCTCGGAA 300
 GTATTATAAT TCCGTAGCTG AAACAGGACG CTTATTTATG TATGNTCCAA TCTCTNCTCA 360
 TTTAAAAATG NCTCAGCATT TCCNGCCATT TAGATAGGTA AATNAATAGT CCATTANNTT 420
 40 TGNTNACCTA CCATAANTAT TTN 443

SEQ ID NO:3874

SEQUENCE LENGTH:423

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04598

SEQUENCE DESCRIPTION:

50 GATCTATGGT ACAGTTCATT GGCAGAGAAT CCAAGTACTG TGGACTTTGT GATTCCATAA 60
 TAACCATCTA TCGGGAAGAG GGCATTCTAG GATTTTCCGC GGGTCTTGTT CCTCGCCTTC 120
 TAGGTGACAT CCTTCTTTG TGGCTGTGTA ACTCACNNCC CTACCTCGTC AATACCTATG 180

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5 CACTGGACAG TGGGGTTTCT ACCATGAATG AAATGAAGAG TTATTCTCAA GCTGTCACAG 240
 GATTTTTTGC GAGTATGTTG ACCTATCCCT TTGTGCTTGT CTCCAATCTT ATGGCTGTCA 300
 ACAACTGTGG TCTTGCTGGT GGATGCCCTC CTTACTCCCC AATATATACG NCTTGGGATA 360
 GACTGTTGGT GCATGCTACA AAAAGAGGGG GAATANGNAG CCGAGGGAAA TAGCTTATTT 420
 TTN 423

SEQ ID NO:3875
 SEQUENCE LENGTH:413
 10 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04599
 SEQUENCE DESCRIPTION:
 15 GATCCAAATN ACCATCATCT CTGATGGAGA TGGGTTGGGT ACCTGGCCTT CATGGCACCT 60
 TCACTGCTAG GGATGCTCAA GGGGCAGGCC TGGGGCCTTC CCTCCTGTCT CTTCTCGGTC 120
 TTTCTCTCT GAGCANCCTC CTACCTCCCC TGCCTGAGCC TCACTCCACA GCCCTCCCAG 180
 GTACCTAGCA GAGGCTGTCA GTCCTTGGCT CACCTGGAAC AGGGCTGGGG CTGGGTTGGA 240
 ACAAGGTGTG TGCCNCACCA CATCTCTATG ACTCTGTTCT CCCTCCCTGC ATTGTGGCTC 300
 20 TTGTATTTGA GGGCCTCAAG AGAGTGAGGC CCTACCATCA CTGTCCATAT TAAGTCCAAG 360
 CCAAGTGNG GTTCTCTGT TCCCTCNTAA GCAATCAATN GTTNAGTTTC TAN 413

SEQ ID NO:3876
 25 SEQUENCE LENGTH:410
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04600
 SEQUENCE DESCRIPTION:
 30 GATCCACCTG CCTCGGACTC CCACAGTGCT GGGATTACAG GTGTTAGCCA CCACCCCGAC 60
 ATTATTTGAA ACTTTTATTT TATCATGAGA GAGTTCCAGG AGTCAACTGG AGAGAGATTT 120
 TTGGTATGAA AATTACATAT GCAAAAAGAC TGATTCCAGT ACATGAAATT AAATTCAACA 180
 TTTACATTAA ATGCCITCAA ATATGGTAAA ATGGTTTCTT TTGGCACNNT ACCTCATTAT 240
 35 GTTTTGAATG ATTTGGTCTA TCATATGAAA TAACTTTTAT AAATATAGTA NCTCAGGCCT 300
 GGGCACAGCG GCTCAAGTGG GAGGNCCTGCT TAAGCACCCG AGTTTNGAC CAGCGTGGAC 360
 AACATGGGGG GACCCCTTNC TGTCCCAAAA NTAGCTGAGC ATGGCAGCGN 410

SEQ ID NO:3877
 40 SEQUENCE LENGTH:402
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04601
 45 SEQUENCE DESCRIPTION:
 GATCCCAACA ATGGAACCTT CCTTCTCTGC TGTCAACAAA GGAATAAAAA ACTTCTGTGT 60
 GATTTGATAC AGACAATTTA GAAAACTTTT GTTCAAAGT TTCCCATCCA GACTAGCCAA 120
 GGAGAGCAAG GGAGGGNNNC TAATAAGCCC ATTAAGGTGT CTTCCCAAAC AAATGTTTTT 180
 TTTGTCCTTC TGCCCAAATG CAGAAACAGC TGCAGCTTTA AAAANTAGCA TACTTTTATC 240
 50 TTTTGANGGA AATATGTGAA AGTTTTAGCA CTGGTTGTCT TTGGTTGGCA AGAAATTGTT 300

55

NAGTGTATN NATTNCTTCC TATTGNCTG AATTTNCCA AATTTGTCCA CAGCAAGCAT 360
 GACTACTTTN NTCATATNAA ATCTCCANTG NATTTATGCA AA 402

5 SEQ ID NO:3878
 SEQUENCE LENGTH:393
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS04602
 SEQUENCE DESCRIPTION:
 GATCTTGTC CTAAATCTA ATTTATATCA AATTTATGAG AGAAAGTATT TTCCTAATNA 60
 TGGTCAAATA AATTTGGTTA ACATCCTAGT GATTCTCTTT CTATATAATA AGGCAATTAC 120
 AGTTTTCAA GCATTAAAGTC TAACATAACT TTAACATTC TCTTAGGTTT CAAGACACTT 180
 15 CTATTTAATA TTCATTGGGG AAAAGTTGTC CAGCTATCAG CTAGNGAAAA CACATGCAAA 240
 TATGGTTGTG TAAAGTTAAG GGTATANGG NANNANANAT CAGTAGAATT ACATAATACT 300
 AAANGTTGCA GTTGAAGGAA TATCCCAGTN TGTGTTGGTA GTTNCTNNAA GNNTTNTAGC 360
 TGTNATTGCC TTGTTTTTNT AGCCCTTNGT TTN 393

20 SEQ ID NO:3879
 SEQUENCE LENGTH:392
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS04603
 SEQUENCE DESCRIPTION:
 GATCTNAAGC TTNCTNCTTG GACACCCCAT ACCCANAGTC CTCCAGGCCA CCCTTAAGTA 60
 CAATGTTCTC CTACCTAAGA AGGCATCTGG ATTTTNTCTT TCCTTGGAAG TAGTAAAGAA 120
 30 CTACTCTTTG ACTGTTTTTG ACCTCACAGT GAACCTCAA TACTGGAAG TTCGCAATAA 180
 ATCCAGTATG GTGGTTATAG ATGTAAAAAT GCTATCAGGA TTTACTCAA CCATGTCATC 240
 CATTGAAGAG CTTGAAAACA AGGGCCAAGT GATGAAGACT GAAGTCAAGA ATGACCATGT 300
 TCTTTTCTAC TTGAAAATG TTTTGGTCG AGCAGACAGT TTCACTTTT NCTGTTGAGC 360
 35 AGAGCAACCT TGTGTTCAAC ATTCAGCCAG GN 392

SEQ ID NO:3880
 SEQUENCE LENGTH:385
 SEQUENCE TYPE:nucleic acid
 40 TOPOLOGY:linear
 CLONE:HUMGS04604
 SEQUENCE DESCRIPTION:
 GATCTCACCA CTGCACTCTA GCCTGGACGA CAGAGGGAGA CTGTCTCAA AAAAAACAA 60
 45 AGAAAGAAAG AAAAACTGT AAAAAAAT TTNCTGCAAT GGNCTTAATA TGTGTGTCCC 120
 TTAAAAATGT ATATATTGAA ACTCTAATCC CAATGTGATG TTATTTAGAG GTGGGGCCTG 180
 TAGGAGGTAA CTGGGTCCTA AGGGTAGAGC CCTCATGANT GAGATTAGTG CCCTTATAAG 240
 ANGCCCCAAA GCTAGCTACC TCTNTTCCCA CTATGTAAGG NTACAAAGNG AAGTTGGCTG 300
 TCTGCAAACT AGAAGAGGGC TGATACAGTT TGGCTGTGTC CCCACCCAAA TCTTCATCTT 360
 50 AGGTTTTTAA CTNCCGAAT TCCCN 385

55

SEQ ID NO:3881

SEQUENCE LENGTH:383

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04605

SEQUENCE DESCRIPTION:

GATCTTAAGG TAATTACAAA AGGGAAATTC CAAGAATGCA TAACACAATG ACAACATGGT 60
GAGAAAAGTG CAGTACTACT TCCAAGGTAG CTAGTGTAAG GGACACTTGA GTTTTAAAA 120
CTGTGGTTAA ATGTTTTATG TGGAAATTGA TGAGTTTGT TATTAAATAC CACTGCTTGC 180
TGCTTTTACT AGAATCAAGT TAAGGGNCAC GTTAGAAATA GAACAGCTTA ATATCACTGG 240
CTTCAGAGCA AAATGAGCTC GGGTGACTGC AGATTATGAT GGTAATATG GCTTTAATTA 300
CAAACATGNG GNATGATTCA CTGAAGGTGA AAAGNTAGGG CGGNTGTGNT ATTGAAAAAA 360
AACCCANCAT TTTTGGCATT GAN 383

SEQ ID NO:3882

SEQUENCE LENGTH:383

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04606

SEQUENCE DESCRIPTION:

GATCTATTTC TCAGTAATGA GTGTGTNCTC ATGCCTGTTT CAATATTGGG TTTTGGAGCA 60
TTATTGTACC AGGCTGTTGA TTGCATACTG TAGAAGATTT GATGTTTANA CTGGTTCTTC 120
TTCATATACT ATGTTTNGTC TCAGTTNCTA TGCTATTGGA TGATACTTCA TTTGTTGTTC 180
TGGTGCTGAT GAAAAGGGNA ACCTGCTCTC CTCTATTTAG ACCTTGACAC TTATTACTGC 240
TCAGTTGTTN CTGGAGCTGA AGNAATGAAA NGTCTGGAAG GAACAGCTAT CAGATGTGGC 300
CATTTGGATT GTNACAAATG AGGAACCCCTG TGTACTGGGA CAGTTGCCAN AATAATATAT 360
GTGGCCTNCT ATAATGTGCA TTN 383

SEQ ID NO:3883

SEQUENCE LENGTH:380

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04607

SEQUENCE DESCRIPTION:

GATCTGAAGC CAGAAGGGCT GAGTGTATTG TNAACTTATT CTTGCATGTN GCTGTCTGGG 60
AATGGACCAC ACTACAGCAG GTAGTNTCTG GGGCGATACT GCCGAAAGNC CGANCACATG 120
TATTTTGGCT GCAATTGAGG NNCTTGGGAT GCTATTAATT TTGTATTCA GCAACTGCCC 180
CTTCTCCTAT CCCAAAGCAC CAATTACTNC CCTCTGCCTC AGNGGTACCA GTATAAGATG 240
ACATTCCAAA GACTGGAGGC AACTCAGCCT GAGTTAATTC ACAAATATAT GCCATGCTGG 300
GGCTTGAGCT TGAGCTTGGG CTTAGGCTTG GGCTCAGCTT TTGACCCTCA GGCATCTCCT 360
TTNCCCTNCT GTCTTNCTTN 380

SEQ ID NO:3884

SEQUENCE LENGTH:377

SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS04608

SEQUENCE DESCRIPTION:

5 GATCTGTCA CAAGCTGGTG TTCAGGAACC AATGTGTGAC TGGTCCATGC CCACTTCTGA 60
 TTATATGGAC TCAGAGACAA TGTACATGGG AGTGCTTGC CAGTGGTAAA GTTCTACAA 120
 ATGGGAGGTA ATTGCATGGC AGGTGTAAAG TTATTTGGAC CATTGAGGCC AGAAAAAATG 180
 TAGATTTAAA ATATACTGAT ACTGAAAGCA GANCTGTTG ANCTAATTGC TAATTTTAAAG 240
 10 GNATTCAGAC ATTCATCCAA AGGNTTTAGG CCAAATGTTG CCTAAATTGT TTCTCTATTG 300
 CATATGAAAG TGATTTTCNGC GGCTTAACNG TTCTCTNCTN TTTATGTGCA TGGCCATAGC 360
 TGGTTGTNTT CACATGN 377

SEQ ID NO:3885

15 SEQUENCE LENGTH:367

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04609

20 SEQUENCE DESCRIPTION:

GATCAAGGTG AAGCTCACAG TGTCAGGCTT TCTGGGAGAG CTCACCTCCA GTGAAGTCGC 60
 CACTGAGGTC CCATTCCGCC TCATGCACCC TCAGCCTGAG GACCCAGCTA AGGAAAGTTA 120
 TCAGGATGCA AATTTAGTTT TTGAGGAGTT TGCTCGCCAT AATCTGAAAG ATGCAGGAGA 180
 AGCTGAGGAG GGGAAAGAGAG ACAAGAATGA CATTGATGAG TGAAGATGTC GGCTCAGGAT 240
 25 GCCGAAAAAT GACCTGTAGT TACCAAGTGA ACGGGCAAAG CCCCACAGTT TAGTCCTTTG 300
 GAGTTATGCT GCGTATGAAA GGATGAGTCT TCTTCCGAGA AATAAAGCTT GTTTGTTCTC 360
 CCTGAAA 367

30 SEQ ID NO:3886

SEQUENCE LENGTH:360

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04610

35 SEQUENCE DESCRIPTION:

GATCAAAAGTA GCTTACTATA TCTAAACTGT AAAACAATAT AGTTTCTCCT GAACACCTGC 60
 TTTCCTTCTG GGAGTCTGGA ATTTTGGTAT GTGCCAGGCA GAGACTACCT TTGTGACCAG 120
 CTCCCAGTAA AAACCCAGG CACTCAGTCT CTAACAAGCT TTTCTGGTTG ACAGTGTTTC 180
 40 ACAAGTGCTG TTACAACTGG TTGCTGGGAG AATTAAGCTC ATCCTCTGTG ATTCCACTGG 240
 CGGAGGATTC TTGGAAGCTT GCACTTAGTT TCCCCTNGAC TTCACCCCAT GTGTCTTTT 300
 TCCTTTGCTG ATTTTGTTTT GTATCCTTTC ACTGTAATAA ATCATGGCCG TGAGCAGAAA 360

45 SEQ ID NO:3887

SEQUENCE LENGTH:359

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04611

50 SEQUENCE DESCRIPTION:

GATCGCAAGT GACTGCTTCC GCTTCCAGGA CTGGGCCAGC TAGTGGGGGT GGCAGAGGTC 60

55

TCTTTGCTTC ATTCAGCCCT AGCTCTGTAG AGAAATGCAA ACCTCGACTC TCAAGGATGT 120
 GAGGAACACA AGTTCATTTT TGTGTTGCG GAGACACTGC AGACTCCACT GTGCCGAGGT 180
 TGAACCTCTN NTTGTTGCTC AAGTTCTAGG AGTCCCTTTC CTGAATATAT ACTTGTTTGT 240
 CATAGTTTCC TTNNCAAAGT AGTAAACTTT TCTATTNNTC TACTTGCCCA GTAGAGACTC 300
 TTGATTCTGG AANATTCTNG NCAAAATAAT TTTAATAATA CACATGGTTG CTTCTTAAA 359

SEQ ID NO:3888

SEQUENCE LENGTH:359

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04612

SEQUENCE DESCRIPTION:

GATCACTTGA GGCCAGGAGT TCAAGACCAG CCTGGGCAAC ATAGTGAGAA TGCATCTCTA 60
 CAAAAAATAA AAAAAATTAG CTAGGCATAG TACCTGAGGC CAGGAGGTCC AGGCCGCAAT 120
 GAGATGTGTT TGTGCCATTG CACACCAGTC TGGGTGACAG AGAAAGACCC TGTCTCANGG 180
 GCANNTTAA TAAATATCT TCATATATAA ATTAAGCTAA TTTAAANTAT TTTCCCTGT 240
 ATTTNTTAN TATTTTCTAA TCTGAACCCA TATNCAGCTG ACTANTTCAT TCTTAGAANT 300
 GTGTTATCTG TAATCTNTCC TAAACAGTGT AGCCCAACAAG GNTCCATGGC ACTTTTAN 359

SEQ ID NO:3889

SEQUENCE LENGTH:359

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04613

SEQUENCE DESCRIPTION:

GATCTAAAGG GGACACTGTA CTCAAGCTTT TNACCTCATG CCTTGTGTAG TAAAAAGGA 60
 TTTGGGGGTT TTGTTTGGTT CCTGAGAGGG TTGTGTTTG TTTTGTTC CTTTGTTTA 120
 TGTTTTGGCC TTTCTCTTT GTCTTTCCAT GTAGACCAGA TATTGAAAG GGCAGACGAT 180
 GGCTAGAGGT GTAATGTGCA GCTTGTATAT ACGGTATTT GGGAACTTA CCTTGGATGG 240
 GAAATCGAAT CGTGGATTCA CCAGGCCGGT GCTGGCACAC TCACCCTCGC CTTTCCCTC 300
 CGGTTCACTA CCTATTGTTT CTCCTTTCAA ATATGTGATT GTACTAGCTC TTCCATAN 359

SEQ ID NO:3890

SEQUENCE LENGTH:358

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04614

SEQUENCE DESCRIPTION:

GATCTGATGG GCTCTAACAG TGCTTACTTG CAGCCTTGTG TCCACCACCA ACTTCTCATC 60
 ATGTTTCTCT CCGTTGGCCG TTGGGTTTCC AACTCTTCAA NCTTCAGGGT CTGGGNCAGG 120
 GAGTGGGCCC ACCATTTGTG GGGAAAGTAT CATTCTCCA CCTCAGGCTT GGGTAGATTT 180
 GGAAAAANAC AAGGTNAGGA TACGCCTGTT TGAGCTTTGG GGNATGAACT TTGCTTTTAA 240
 TATTNACTA NGGNTACTTT TATATGATGG GTGCTTTGAG TGTNATTNAG CAGGNTCTCT 300
 TNGTTTCCCG AGGGNCCTGC TTTTGNAAGG TGACCNNGGT TACTTAAGCT AAGGNTTN 358

EP 0 679 716 A1

SEQ ID NO:3891

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04615

SEQUENCE DESCRIPTION:

GATCAACCCA CATTAGAGTG TCTAAGGACT CCTGAGAATT CCTGTTACAG TAAACAAAAC 60
 TAACGTAATC TACCATTTC TACACTATTT GAGCATGGAA ATCATAGTCC CCACTCTGTG 120
 AAAACTTAAC GCTTTTGGGA AGACATTTCT GTAGCATGTC AGTTTGGAGA AATGNNTGNG 180
 CTACGCCTTG ATGAAAGAAC CGTGTGGTG CTGCTAAGTT TAGCCATTAT GGTTTTNCCT 240
 NTCTCTCTCT TAAGCCTTAT TCTTCAACTA AAAGATGAGG ATTAAGAGCA AGANGTTGGG 300
 GGNNGATGTG AAAATAATTN TATGNGGTTG TCTAAAATAA AGAGTAGTTT CTTAAA 356

SEQ ID NO:3892

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04616

SEQUENCE DESCRIPTION:

GATCTACAAA TGTACGTTGT TACAGGGCTG CTTCTAAAG ATTTTTTTTA CCTCAGGTTT 60
 CTCTTAATAT AGTTCTCCAG TCACTGACCT TGAATTGACT TACATAAATT ACTGCCAATG 120
 TTTAAATTGC CCTTATGTTT ATATTTATTA TGTCAAGCCA ATTCGTACAT ACAATTTGGA 180
 ATCAAATGTC ATAAGAATTT ATTATATAAA TTTNTCAAGA ATAAAAATGC CTCTCCAGCC 240
 TTAAGTATTT ACATGCTCCC AGGTCATTGT CAGTTTATGG TATTATGTTG TTTTATTTAA 300
 AGCATTGAAT TGATAGAAAA AATTGCTCTG TAATAAAAAAT CTACTTTCAC ATAAA 355

SEQ ID NO:3893

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04617

SEQUENCE DESCRIPTION:

GATCTCATTC TTNTTATGGC TGCATAGTAT TCCATGGTGT CTATGTACCA CATTNCTTN 60
 ATCCGGTCCA CCACTGGTGG CATTTAGGTT GATTCATGTC TTTGCTATTG TGAATGGTGC 120
 TGCGATAAAC ATGCATCCAT GTGTCTTAC AGCAGAACGA TTTATATTCC TTTGGGTATT 180
 TTTTTGAGT ATAGTAATAG GNNNNNNGG TGGAGTGGCA GTTCTGTTT AAGTTCTCTG 240
 GGAAATCACC AAAGTCTTT CCACAGCAGA TGAAGTAGTT TAACTCCCA CCAGCAGTGT 300
 ATAAGTGTTC CTTTTCTCT GCAACCTCAC CAGCATCTGT TATTTTATA N 351

SEQ ID NO:3894

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04618

SEQUENCE DESCRIPTION:

GATCTTCTTG TAAGCACATC CAGAGTGAGA CTTTCTATG TTTGAAAGAA GAATGTGTGT 60
 ACATTTC AAG AATTTGGGTT TTTGGAGGG AGGAGGAACT GTTTACGTTT TTCCTCCACA 120
 CGTTTGATTT TTGACACATA CCCCCCTAAT TCCTCAACAG CAGACCTCCT GCAGCCACCA 180
 GGGGCCAGCT CTGTGTAGGA ACCAGATGGT CTTTTTCCAA GCNGCATCTT CAGCTGCCAG 240
 CTAAACTCCA ACCCCAGNCA GGGAGGGGCA GGCTCAAGTC TTNCAGAATC ACACAGGGGC 300
 AACACATGCA NNNNCCGGNA CCTGTNCTGT ACNGTCTNGG TTTNTTCNTN 350

SEQ ID NO:3895
 SEQUENCE LENGTH:348
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04619

SEQUENCE DESCRIPTION:
 GATCCATAGG AGGGTAAAAT GTCCGTTTTC TTCATTAAAA CTTCTCAGCT CAAATTTATA 60
 CTAAAGCATA TCCAGGAATT AAAAAAAG GTTTTGATGA TATTGCTTT CTAGTTTAAT 120
 AAGTTTAAAT ACTGAATAGG TTAAATTAAT ACAAATAAC ATAAATGCT AATATTTATT 180
 GAGTATTTAC TTGTGTACCC ACTACGNTT TAAGTAATTT ACTGGGATTA TTTTATTTA 240
 GTTTAACAAT GCAGGTAGCT ACTATAATCG TCCNGGTTTT AACTTGAGG AAACAGGCTA 300
 AGAGAGATTA ANTTAGTGGC CCAAGGTCAG AAAGCTCGTA ATTCTTGN 348

SEQ ID NO:3896
 SEQUENCE LENGTH:347
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04620

SEQUENCE DESCRIPTION:
 GATCCCAAAT ACTGCCATTG TGTGTCTAC TTATGAGTTA ATTGTGTACC TGTTAGAAGA 60
 CCGTACTCAG TAACAGGCCG GAAAATTGTG CTCTAGAAGA ATAAACTGA AAAACTCTAG 120
 AGAATTTTTT TTCCCATTTG ATGTTTAGAA AGTTTGAGAC TGAACAGGA AAGGCCATAA 180
 AATATCTGGT TCATATCACC TGTGGACAT TTCCTTTTGG ATTCATGCTT TCTGGAAGGT 240
 TTAAATTCAT TAACGTTAAT AGTTAATTAT AACTNTTNT TTAACCTAAG AGGATTCAGG 300
 GTTAAGCACC AACTAAATTA AATCATGCTA TTAAATTAN GTATAAA 347

SEQ ID NO:3897
 SEQUENCE LENGTH:345
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04621

SEQUENCE DESCRIPTION:
 GATCTAGAAT CTNTNCTNGG NTAAGCATAT AGGATGCCAC TTCTTGCTAC CTCCACAGCA 60
 ATACATCACC TGGACAGCTT GCCACTCTTT GTTGCCTTGA ACTTCTCTGA TGTTTAGGCA 120
 GCCCATTTCTG GTACTGAGAA CACAGTGAAT GAGCTACATC CTCCTGCTTT CTTCTTCTAT 180
 TATNACTTTT ACCTGATTTT TTCTCAGGAG GAAGCTGTAC ATTTTAACAG GACAGATAGG 240
 AGGAAAAGCA ACTATTTTTC TGCCGAGATA ACAATTGACA ACTGGGGCA GTATGTGCAG 300
 AGTTTCTCTG GAGTTGTATT AAAAATTATC TGATAAGCTG CCAAA 345

SEQ ID NO:3898

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04623

SEQUENCE DESCRIPTION:

GATCAGTGTA CTGTTACCCG GACATACCTA TTCCTTCACA AGTCTGGTT CTTCAGTGCT 60
 GCTTACTATT TTGGTAACTG GGCCITTTCTT GGGGTATTTT TGATTGGATT AATTGTATCC 120
 TGTGTAAAG GGAAGAAATC GGTATTGAA GGAGTAGATG AAGATTCAGA CATAAGTGAT 180
 GATGAGCCCT CTGTCTATTC TGCTTGACAG CCTTCTGTCT TAAAGGTTT ATAATGCTGA 240
 CTGAATATCT GTNATGCATT TTAAAGTAT TAAACTAACA TTAGGATTG CTAACNAGCT 300
 TTCATCAAAA ATGGGAGCAT GGCTATAAGG CCAGCGATAT TN 342

SEQ ID NO:3899

SEQUENCE LENGTH:410

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04624

SEQUENCE DESCRIPTION:

GATCTGGTGC CCCTCTTCTC CTGGATTAC ATCCCCACCC AGGGCCCGCT TTTACTAAGT 60
 GTTCTGCCCT AGATTGGTTC AAGGAGGTCA TCCAACTGAC TTTATCAAGT GGAATTGGGA 120
 TATATTTGAT ATACTTCTGC CTAACAACAT GGAAAAGGGT TTTNTTTTCC CTGCAAGCTA 180
 CATCCTACTG CTTTGAACCT CCAAGTATGT CTAGTCACCT TTTAAAATGT AAACATTTTC 240
 AGAAAAATGA GGATTGCCTT CCTTGTATGC GCTTTTTACC TTGACTACCT GAATTGCAAG 300
 GGNTTTTNAT ATATTCAATA TGTTACAAAG TCAGCANCCT CTCCTGATTG GTTCAATNAT 360
 TGAATGTGCT GGNAAATTNA AGGTCGGTTN NANTTTAAAN CAAGGNTNCN 410

SEQ ID NO:3900

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04625

SEQUENCE DESCRIPTION:

GATCAAGATA TAGAGCATCT CCATTTATAA AGTTCCTTCA TGCTCCTTCC CAGCCAGCAA 60
 TTCTNCTTAC TGCCTGCTG ACTCCTGTTT TCACCTTCAT CACCATCAGC TCATTTNGCT 120
 TGTNCTTGAC TCATAACAG AATCATATAG TAGGTGGTTC GTTCAATGTA GGCAGTCTGT 180
 TTTNGCTTTA ATCATTACAT GAGTATACAT CCATATNGTG TGAAGCAGTA GTTCTTTNGC 240
 ATTGCTGTGT AATATTCCAT TGTATAATTG TATAAATATA TGTGGTATAA ATGTAAGTAT 300
 AGCACANTTG ATTCCTTATN GGGCCACTTG GTTTATTN 338

SEQ ID NO:3901

SEQUENCE LENGTH:238

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS04626

SEQUENCE DESCRIPTION:

5 GATCCACTGG TAAAGGGCAT CCCAGAGGNC AAAATCCCT TCAAGGAGCT CAAAGGAGGC 60
TGTGTGATTT CATAATACAA AAAAAAGAA AAAAAATTAN ACAAATCTT GGAAATATCT 120
CAAATGTAA TAACAATATG ANTTTTCTC ATGCATACTA TTACTACTAA GCATGTACGT 180
GANTTTTAA ATGTATAGAT GTAAACTTTT ANTAAANNTT GGGGTGTGGT AACCCAAA 238

10 SEQ ID NO:3902

SEQUENCE LENGTH:331

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04627

15 SEQUENCE DESCRIPTION:

GATCTCTATA AGTTATTAAT TTAACCTGAA ACCAAAGTGG TCTCCATTTA AAGTTACTTA 60
ATCCCTTTGT ACCACCTATT TCTAGTTAAA TATATGTNGC TANNCAAATA GGTAAGTGC 120
TTCCTTGCCA TGATGGTAAT GGATTGGAAC TATGAAGGCT CTCAGTGTAT TGGCTTCTGT 180
20 AAAGATGAGG CGTCTCCTCA GAANCCCNAA CTTTTCACAT TTCTGCTTAC TAGACCTGGG 240
TTGATGTACA TGGTAAGTCT CAAACAGATG CAAGCTATGT GCAAANGGA ACTTTAGCCA 300
AATGGAAATA GCTGGATGCT TTGNGAATTG N 331

25 SEQ ID NO:3903

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04628

30 SEQUENCE DESCRIPTION:

GATCCAACT GTGTTGTTCT TAAATCAAAA ATTGGNTAAT TTTAATATN TATGTATTAA 60
TCACAAA 67

35 SEQ ID NO:3904

SEQUENCE LENGTH:327

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04629

40 SEQUENCE DESCRIPTION:

GATCTGCCGG AGTCTTGAAA TTCAGCTGAT TGGAAGTGGT TTCTTTGACT TTCAAGGTCA 60
TTCCCTATCA GTTACTACTA AGAGTTCTCT TACTGTCAGA ATCTCTCTTG CAGTACAGCT 120
CAAAATAGTG GATGCATTTT AAACCTTGACC ACCTTTTCCT ACCAGCTAGT TAGAAGTCAT 180
45 CAATATTTCT CTACATTTNG TTTATCTGTA AGTCCTTTAA ATCTATTTN GCTAGGCATT 240
CATTATGATT AATAGTAGAC TTTAAGACA ACATTTNTGT CACTCCCCAC CTCCTCATAT 300
TTNATAAAGG AGATATTTAC CTTGAAA 327

50 SEQ ID NO:3905

SEQUENCE LENGTH:326

SEQUENCE TYPE:nucleic acid

55

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS04630

SEQUENCE DESCRIPTION:

5 GATCAAAGAC CAAAACATTT TCTTAAATAT ATTTTATGTA ATATTTTATT TGTATACAGT 60
 GTTGTGATG AAATATTTAA CTAGAGCATG ATATTTTAAA TGTTAAGGTG TAACATATGT 120
 TAAATAAAAC TGTTATTTTN GAATTTNAAA ATNGTTTTT NGGGGGTATG ANCTACTAGA 180
 GTTTAAAATT CTGCCAAACT ATTACTTATA TGtNCTATTG TGTAACATAC TTNCTNGAAA 240
 10 TATTTNGGTT TATAGAATTG ANGGTTCTTA TCAGATGGGA TACTGGGGAC TATAACAAT 300
 GGAAATAAAG CCACTGTATT TNTAAA 326

SEQ ID NO:3906

SEQUENCE LENGTH:325

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04631

SEQUENCE DESCRIPTION:

20 GATCTAATTA AGCTAAATTT TGGTGACAG CAGGTTGTAC ATGATTTTAT GTTTATGTAG 60
 CAAAATGCAT TGAAATGTAT TAGTGTGAA ACATACATGT AAAGGTAGTT GTGGAAATTG 120
 TTATATTNC CTGTGTGTC ATTTATTTAG AGCATAAAGG TTTTTTTTAT TCAGCCNNNC 180
 TGAATAAGGC TAAATGAATA CTGTAATTGA AAATATATTT NAAATCTTTG TCATGAGTTT 240
 25 TTTTAAAAA ANCTATTGCA AATTGTATCA TTCCTGATTA CACAGAACTT TGTGGGTGGT 300
 TTTAANTAAN TNTNNTACTT CTAAG 325

SEQ ID NO:3907

SEQUENCE LENGTH:324

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04632

SEQUENCE DESCRIPTION:

35 GATCTGGCCC GAGCTCTCCT CAGACCTCCC CAGACCTGTC TTCTCATCAG CCACCGCTGT 60
 TTTCTTTTGC CGAACGATGG TTGCATCTCT CGGACACAGT GTACCCCTC CCAAGCCCTC 120
 CCTGAGCCGT TCTCCTGAGT CCCTGAGGGC AGACACAGCT CCAGGGACCC AGGCCGGCTG 180
 CCACACCCNC GACACTNCTG NTGTCCACTG GCCTTAGCTC CTGCAAGTTC CCCAGTGTCC 240
 40 GCACCTGTTT CNTTCCCTGA CCTTACCTN CTGGGGTCTG TGACTGACTG GAGATAAAAN 300
 TAAAAGCAAT TGTGACANCT GAAA 324

SEQ ID NO:3908

SEQUENCE LENGTH:319

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04633

SEQUENCE DESCRIPTION:

50 GATCAAATAC CGAAATTGAA CTTTCTAAAA CCTACACATA GCATGCGTTT AAATTCTATT 60
 ATATAAGGCC CCAAGTGCTT TACCTTCTAA AACATGCTTC TCTATAGGTG CAAAGTTATA 120
 AGATATGTAG AAGAAAACAT CCATCAGAAT CTNCTGGAGA NTATGGTCAG AGTCTTAAAC 180

55

EP 0 679 716 A1

AGGCCCAGTG CTGAGTNCCT TGTCCACTTA GTCACACATC TTTTGTGGGA ATGGGAAAGG 240
AAGGAGACAG CCAAACTCTG ACAANGGCTT TTCCTTATAG ATTAACCCAA AGCCTAGGTG 300
AGGGTTGATA TATTAATGN 319

5

SEQ ID NO:3909
SEQUENCE LENGTH:317
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04634

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SEQUENCE DESCRIPTION:
GATCTGAGCA AATGTGAAC TCAGTATGTT TACTATTGCT CTTACTTGAA AACTTTTTTT 60
CAAAAAAGC ACAAATTAAA GTAGTAAATT CATATCCATA GATAGTTCAT TCATTCAACA 120
AATATTTACC AAGTTCCTAA TATAAGTGAA GGNCCACTTC TCAGATTACT AAGTCATTG 180
TATGAATATG TGTGGCAGTG AAGAGAACAG GTCTTTCAAA AAGCATTGGA TTATCTTTAT 240
TTNTTTTAAA TACACTCTCT NATNTTNCTA CTTGTTTTTT TGTTAATCAT AGCAGGATAT 300
GACAACTCTT ATTTGAN 317

20

SEQ ID NO:3910
SEQUENCE LENGTH:317
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04635

25

SEQUENCE DESCRIPTION:
GATCTACTCA GATGTCATNA TACTCCATAC CTGCTTTTCC CATGGCCGCC CTACGGAAAA 60
TCCCATCCAC AGAGGCCAGG GCTACCCAAG NCCCTCCAGG TGAGCTGGGC CTTTCCTTTA 120
TGAACCTCCA TCCTCCCAGC CAGCTACAGT AGGGCCTCCT CACCCCGTAC CCCACAGCTA 180
GACAGTGTCa GCACTCATCT CCTCCTCCCA CATTNTGGA GCTTTTTTTT TCCTTCCNCA 240
TTGACCTTTG TGGTCTTCTG TGATTATTTA TGCTGCCTCC NAAGGATAGA ATTGAAATAA 300
AATGTTTTCA ACTTAAA 317

35

SEQ ID NO:3911
SEQUENCE LENGTH:316
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04636

40

SEQUENCE DESCRIPTION:
GATCAAAGGT TCTTCATTCA AAAAGAAGCA ATATCCTTTT GCCTGATATG GGGTGGGAAG 60
GGTAGGTGGC GATGATATT CAAATGAATT AGAAACCACC TCCCATTTGA TGATAGCTGG 120
AGAAATGGAC TGACCTAGAA GTTACAGGAC CAGAAACTAC AGTCACCACT AACCTTTCTA 180
CGTGGCACCC AGCCCCACTT GGAGACATTA TTTTCCATC AAACACAACC GTACTGCACA 240
GACATCTTCA CTGTCTGTTG CAAAGATTGG AATACGTAGA TTTCTGTTCA AAATTAATAA 300
ATATTTTAAA TACAAA 316

50

SEQ ID NO:3912
SEQUENCE LENGTH:316

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04637

SEQUENCE DESCRIPTION:

GATCCACTGG TAAAGGGCAT CCCAGAGGAC AAAAATCCCT TCAAGGAGCT CAAAGGAGGC 60
TGTGTGATTT CATAATACAA ACAAAAAGAA AAAAANTTAA ACAAATTCCT GGAAATATCT 120
CAAAATGTAA TAACANTATG ATTTTNTC ATGCATACTA TTACTACTAA GCATGTACGT 180
GANTTTTAA ATGTATAGNT GTAAACTTTT AATAAAANTN GGGGTGTGGT AACCNGNGG 240
GNCTATGTTT TNNTTAACAT AGCTGGCACA GGGTTTAA CATAATNGCC ATAANTATTG 300
CTTAAGGTNC TTAAA 316

SEQ ID NO:3913

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04638

SEQUENCE DESCRIPTION:

GATCCACCTG CTTGGCCTC CCAAAGTGCT GGGATTACAG GTGTGAGCCA CTGTGCCCCG 60
CCAAACCAAT TTTGTTAAT TTCATTTCTA CATGGTCGTC AAACGTGCCT ATCCAATGAA 120
GCCTTCATAG AAGGCCAAG AAGACAGAGT TTGGGGAGCT TCTGGATAGC GGANATGTGG 180
AGGTTCCAGG AGGGCAGGGT GCCCAGGAAG GGCATGGAAG CTCCGTGTCC CTCCCCATA 240
CCTTGGCCTA TGCATTCTT CATCTGTATC TATTGTGATA TCCTTNACAA TTAAACTGGT 300
AAACATANAT AAA 313

SEQ ID NO:3914

SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04639

SEQUENCE DESCRIPTION:

GATCACCAGC TCACGTCATG TTGCCTTCTC TTTCTTTGT GTGTGTGTTT ATTTAAGTNA 60
TTTTTCTTCC TCCTCTCCCT TTTCTTTTG GCCCTCCCTC CCTCCCTCTN CTGCCATGTA 120
ACTGGAGGAT GTGCTATGAG TTTGCAAACA GCTGGACTGT CAGGCTGCTT TTTTCCAGA 180
TGTTCTCTCT CTGCCTCCCC TTCCCTCCT CTCCCTCCT TTTCTTCCT TCCTTCCTTT 240
CCTTGGAGCA CTGAGCACCA TTTGGAAGCT TGAGAGAAAC CAAAATTAA GAGAGAAAGA 300
GAGAGCGTGA AA 312

SEQ ID NO:3915

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04640

SEQUENCE DESCRIPTION:

GATCTAGAGG AAGTACAGCC ACCCACTGAC ATCTGANTTT ATATACCTNT TGAGTTTTGA 60
GTGCACCAA AACTCGATA AACCAGGTGA AGAAATTTAG CTTCCATGTT CTACTTCAGC 120

5 TAAACAGCT ACATACAACC TAGTACCCTT GANGTCAGAC AGACATTTC A GTTGCTTACC 180
TCCAGTACTG AGCCTTGCTT TGGGAAACTA AAAGATTTAG ACCAAGTCAC TGCCAGTTTT 240
NGCCTTNGTN GCATTNGTA CAGTTTTTAT ATNTNGGATA TCTTGTAAT AAAGACAGCC 300
AGCTTTTCAA A 311

10 SEQ ID NO:3916
SEQUENCE LENGTH:308
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04641
SEQUENCE DESCRIPTION:
15 GATCAAACT AAAATAAGTA TAATGCATTG TAATCCAGA GATAAATCCT AGACCCTTCT 60
TGGCCTCCTT CTACATAAT TCTAATCCTA CAGTCTCAGA GATGCTGTTG TATCCTGCCC 120
CCCAACCCCA TGATAGTNAT AGTGGTTTTT GCCTTGAAGG AATTGCTTTG TATTTAGCTT 180
TTCCCCCTCT AGATTCTAG TTCCTTTTCA GTATTGGATT GGATTGAGA TTTGATTAAC 240
CTAGTACTCA GGTTCAGATG CTCGCCTCTT TGCAATTTA ACACTCATTC GACAATAAAG 300
20 TCAGTNGN 308

25 SEQ ID NO:3917
SEQUENCE LENGTH:306
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04642
SEQUENCE DESCRIPTION:
30 GATCTAATGC ATCCTATATC CAGTAAGTAG AATTATCTCT TCATCTGGGA CCTGGAATC 60
CTGAAATAAA AAAGGATAAT GCAATAAACA CAGTTGCAGG AAAGTATGTT AGCTATATAC 120
TATGAAGTAC TCTTAGTTTA CTTATGTTGA ATGGCTTAGC TATTAATACT CAAATTGAGT 180
TAAATGAAA ATTCCTCCTT AAAAAATCAA ACGTAATATG TATTACATT CATGGTACAT 240
TAGTAGTTCT TTGTATATTG AATAAATACT AAATCACCTA GGTGTCTATG TTCTATCACA 300
35 TCTAAA 306

40 SEQ ID NO:3918
SEQUENCE LENGTH:306
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04643
SEQUENCE DESCRIPTION:
45 GATCAGCTGC AGCAGGNTGG GTCCCTCTGC ATCTGTCCAT CACTGCGACT GATGGCAATG 60
ACTGAGTATA ACACCTTTCT TCATGGTCAA CTCTACCCAG GAACCACGTA GGAAGGAAA 120
TTCTGGAAA CAGCTCCCAG CCTTAGCCAA CTTGACATAT CATAATCCAA CAGANCTCAA 180
CCTCTACCAA CTTGGAATC ATGTACATTT GTCAGGACTG TATTTAATT CCACATAGAG 240
AGAAAGCAA ATTATACTTT TGACCAAACT AATAGANTTA TCCATTAAAC ANACAAAAC 300
50 GTGAAA 306

55 SEQ ID NO:3919

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04644

SEQUENCE DESCRIPTION:

GATCCTCCCA GCTCTGTCTC CCAAAGTTCT GGGATTACAG GCATGAGCTA CTNTGCACAA 60
 GCTAAGAATA TGTGCTTTTA AATCCCATAA GGAAGAAAAAT ATTTTGGTA AATAAAATTA 120
 AAGCATAAAT ATCATGATTT ACCTGACGTT TACCGTAAGC AACATAAAG ATATGTGATA 180
 CTGAATGACT AAAANGTAGT TTTGGTTAAA GAGAGTTCTA GTTCCATGA GGNCTCTGAC 240
 AATGCTGCAT TTTATTTTNC TTTTAAATGT GCACATTGGT ACANGTTTAA CTACTCTACT 300
 CCTGTN 306

SEQ ID NO:3920

SEQUENCE LENGTH:304

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04645

SEQUENCE DESCRIPTION:

GATCCTGTTA TGAAAGCCC TAAAAAATAG GGTATAGAGT TTGGGCATAT TTCAGAGGTA 60
 ATAAGAAAGC ATTCTGCATT TTAAAGTAA GGTTTAAAAA TGTTTCTAAT TAGNGATACA 120
 GCAAAGTTGG TGTGAGAGGA TAAAGCTGAT ATACATAATC TGAGGAGTTC ATGAAAATTC 180
 ATGTAAANCT GTAGTATGAA TTGGCCTAGG NGCAGCAGCT NAGGGCATAG NGACTTTAAG 240
 ACTTTTCCAA GAGAGTGNAG GCTGNGATA AATTGTGACT AAAATATATT TTGTGTTTGN 300
 GAAA 304

SEQ ID NO:3921

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04646

SEQUENCE DESCRIPTION:

GATCAAGTAA TTCTTTCACT AGGTTGGGTT TGGGGAGGGG GGAAGAGAGG GGCTTTTCCT 60
 AGGAGAACGA TAAGAAATGG AAAGACTCCT TGAAGTGTG CAAGGGAACC TCCTAGCACT 120
 GTGAAAGTCA GAATCGCCTC AGCATTCCA TGACGCACAT TATGCAAATC TTTTAGCAC 180
 TATTTTAAAG TTGAAAACCT TAACAATGAA GGGGAAGGGG AAGNTTCCA CCAACTGANT 240
 CATTTGTGCA CGTGTATAGC TCAAAGNGCT TAGACTTCAA ATATATCTGG TGAATGACAA 300
 A 301

SEQ ID NO:3922

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04647

SEQUENCE DESCRIPTION:

GATCTGCCTG CCTCAGCCTC CCAAAGTGCT GAGATTAGAG ACGTAAGCCA CCATGCGTGG 60

CCAATAAGAC TGACTTTTAA TTTTCCTTTC TTGTACTGTT CTTGTCCTGT TTTGGTATCA 120
 AGGTATATATT AGCCTCATAA AAGGAGTTAA GAAGTGNTCG CTCCTTCTAT TTTCTGAAGG 180
 AGTCTGCTAA GTATGAGAAC TCTCTATTTT ATGAATGATT GATAAACTC TCTTGAAAC 240
 TGTCTAGACC TTATGGAAAT ATTCAGTAA TAGTTACAAA GCTATTCAAG TTGTCGTGTT 300
 N 301

SEQ ID NO:3923

SEQUENCE LENGTH:299

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04648

SEQUENCE DESCRIPTION:

GATCTCAGTT GGATAGTTGT ACCTCAAAAA AGTAGGTGAG AACTGGCTTC CTCATTGTCC 60
 CAGGATGTCA AATACTAATG ACATAAGAGC TCACTTACGT GCCAAAATTC ACTTTTATAC 120
 TAGTTTTTCA GTGCTTTAAT ATTTGTAAC TAAATTTNAA AACTCGTATT TACAAACACT 180
 ACTGTAAC TNCAGTGAACT GAATTGTGCG ATTGANGCTT TTTGCTTATC ATAGTATNTA 240
 TTAACTACT TANTTCAGTA AATATATAAA NGTAGCCTNC AATTGANGTG TNTATTGAN 299

SEQ ID NO:3924

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04649

SEQUENCE DESCRIPTION:

GATCAGAAAG GTGAAATGTT TCGAATTTAA AATGTTTAAA GCATGTTTGG TTTTATTATT 60
 TTTACATAAT TGTTTACCAC TAGTTTTTCC ACTAGCTTTT TATTATATAT GTTTAATTAT 120
 GTAATTGTTA TTTACTAGCT TTTATTATAT AATTCCTTTT AAATAATACT ACTATTCATC 180
 AACTCTTGTT GCATAAGAAT TGCAGTTTTT TCTACCAAAC TTTTACTTCA TCTATGAGTC 240
 GTGTTAGAAA TAGTCATTGA AAAAATATAC AGTAAATAT CTAGCAAAAT AAA 293

SEQ ID NO:3925

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04650

SEQUENCE DESCRIPTION:

GATCTGGTGA AGGCCTNCTG GCAGCATCTT CTCAGTAAGA CCTCATGTGG CAGAAGGAAA 60
 GGGAGCTATC TGGAATCTCC CTTATAAGGG CCCNNNNGCC ATTCATAAGG GCTGCACCCT 120
 CATGACCTAA TCACCTTCCA AAGGCGTCAC CTCCTGGTAC TGTCACCTTG GCGGTTACGA 180
 TTTTCATCATA TGAATTTTGG GACGGCATAT TCAGTCCACA CCAGGAAGTT CTTGCACNTC 240
 ATAGTCGAAA GTCAGTTTTG TGGCTATAAA AATCTTGGTT CCATTTTCCG CTN 293

SEQ ID NO:3926

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04651

SEQUENCE DESCRIPTION:

5 GATCCACCCG TCGTCGCCTC CCAAAGTGCT GGAATTACAG GCGTGACATG CATGCCCGGC 60
 CAACATATAA TTATTATACA ACCCAGCCAC TGCACCTTG GGCATTATT CTAGAGAAAC 120
 AAAAAGTTAT CCCCACTCAA AAGCATGTAC GTGAATGTTT TTAGCAGTTT ATTTTATAAT 180
 GGTCAATATC TGGAAACAAT CCAAATGTCC TTCCATGAGT TAATGGTTAA AATAACTGTG 240
 10 GTGCACCCAT ACCATGGAAT ACTGTTACAG AATAAAATGG TATGAAATGA AA 292

SEQ ID NO:3927

SEQUENCE LENGTH:291

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS04652

SEQUENCE DESCRIPTION:

20 GATCCTATCT AAAAATATGT AGTTATTAAA CATTCTGTGG ATATTTGTNA ATAAGGTAGT 60
 TNCTATGGTC CGAATATCTG GGCCTGCCCC CCCAAATNAT GCTGAAACCT AATCACCAGT 120
 GTGATGGTAA TAGGAGGTGG GACTGAGCTC TGATGAATGA GATTAGTGCC CTTATAAATT 180
 ATGACAAAAA GAGCTCTTCA CTCCTCCTAC CATTGAGGA TACAGTGAGA AGCCTTCATC 240
 TATGAACCAC AAAGTAGCCC TCATCAGACA CTGAATCAGC CAGTGCCTTG N 291

25 SEQ ID NO:3928

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS04653

SEQUENCE DESCRIPTION:

35 GATCTCAGAG AAGTTATTCA ATCTCTAGGT TGCTTTAGCA TCTACTGTG TAGTGAGAAG 60
 AGTTATTTAC TTATATTGTG CATGAGGCCG TTAGATATG TTAATGCAA AACAGAACTC 120
 TTGCTAGCTA AACACAGTAG AACTTGAATT TTTTTTTTNA GAGGTTATTT AATANCAAAA 180
 TCAGGTATT TGTGACTTGG TTGAAGTAAA CGGTGTCTCA GATAAANTAA TTNGTTAAAA 240
 GAGTTGCCCA NTTTATGTCT TATANCTTNA ANCAANTANN TANTAATAAN 290

40 SEQ ID NO:3929

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS04654

SEQUENCE DESCRIPTION:

50 GATCTGGGAT GTGAGTGTAT CAAATCTTAT CAAATCCATT GACAAATCAG TGGTGCTATA 60
 CTGGAAATGG CTACTCCTTT GGATGAAGGA CCTCATTTC CAGTTGCTTG GAACAAANGA 120
 GAATTTACAT NNNCTGTAA GAAGGGAGAG ACGGCAGTTG TTGGTAGACA CACAGNNAAG 180
 GGTGCCCCAAG AATAATTCTG TCTGGATTAA AGGTCCCAGG GAAGTGACGG NGCCATTTCT 240
 55 GTACCAAGAG GTGAATATAA TTTGCATGTT NGNGTGCAGT AATTAAA 287

SEQ ID NO:3930

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04655

SEQUENCE DESCRIPTION:

GATCCCAAGA TGA CTGGGGT GGGAGGTCTT GCTAGAATGG GAAGGGTCAT AGAAAGGGCC 60
 TTGACATCAG TTCCTTTGTG TGTACTCACT GAAGCCTGCN TTGGTCCAGA GCGGAGGCTG 120
 TGTGCCTGGG GGAGTTTCC TCTATACATC TCTCCCAAC CCTAGGTTCC CTGTTCTTCC 180
 TCCAGCTGCA CCAGAGCAAC CTCTCACTCC CCATGCCACG TTCCACAGTT GCCACCACCT 240
 CTGTGGCATT GAAATGAGCA CCTCCATTAA AGTCTGAATC AGTGCAGAAA 290

SEQ ID NO:3931

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04656

SEQUENCE DESCRIPTION:

GATCCTGAAG GGAAGGGGCA GGGATTTCCT CTCCTTCTTG GTCCTGGGTC CCAAGGGCTT 60
 CTGTCTTCAT CTCTGCATGA GCTCTCCTTC CCAGAGACCA ACTCTTTTNN ATTTNATTNN 120
 ATTTNATTTT TNAATTTATG TCTGGAGCCT GGCTACTCTG CATTTGGGNT TGGGGATGCT 180
 GGGTGGGTGT GTGGTCCATG TTCAGGTTTC TAGCAACACG TGTGTGTGTG TGTGTGTAAA 240
 GGCTATGCAG CCAAATACC ATCTGGCCAG ACGGGCCAC CCACAAA 287

SEQ ID NO:3932

SEQUENCE LENGTH:286

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04657

SEQUENCE DESCRIPTION:

GATCACCTGT TCCTACAGTG ACAACTGGAC CTGGCCCGAA CCCCTGGCAT CTGGCAACAT 60
 TATTACCTGT CGAAACAGAA GTAGAGATT T GAAATAGAGG ATGCCAGTTC CCATTTCCTC 120
 CTGCTGTCTG GAAGGAAGTC TGGCTTTCCA GCCCAACTCT AAGCTCATCT TTACATACAA 180
 AATAAGGGTA TGTTTACATG GAAAGCAAAA ATAGAACCAT GGATTTACAG AAGGTTCCAT 240
 AGCAGCAAT ANCAGTGCTT ATGAAATAAA CATTTTAAAT ATTAAA 286

SEQ ID NO:3933

SEQUENCE LENGTH:283

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04658

SEQUENCE DESCRIPTION:

GATCTAATTG TGAATCGTT CACCTTGTTA AACATCTAAG TAAGTCTGTA GTCGCTCTGC 60
 AAACAGCCAT TATATTTATT TACTCTAGAA GAAACTGTAG AGTAGTAATT CGTGCTAATG 120
 AGAAAAACAA AATACCATGT TCAAAACAGA TGTATTTGAA AACTTAATGA CATGGTTCCA 180

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AAACTAGAG CATGTATGTA TGCTGTGCAT CATCTCAGCA GACCTAAAAT ATCCCCAAGT 240
TGTCCCTTTA CAGCCATCAA TATATTNAC ACTCTGCGGC AAA 283

5 SEQ ID NO:3934
SEQUENCE LENGTH:283
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04659
SEQUENCE DESCRIPTION:
GATCTGAGTC CTAGGNCGC CCTCATTAC TAGCAGTAAG AATTTAAGTG GTGCATGGCA 60
CATAGCACTG TACTAGATTC TGCAGGGGCA CAAACATAGA GCCAAACACT CTCCTCTTG 120
15 GAGAAATTC GACCCAGAAA AGGCCACGCA GTTCTAACTT TTGTCATCGG TTCCTTTTGC 180
TAAAAGGCAA AGGGTATGTT CCTTGCCTAT TGTCCAACAT ACCCCTTCCA AGATTGTGAG 240
AAGATGGGTA GCTGGGCATC ATTAAATATT GAATCAATTG AAA 283

20 SEQ ID NO:3935
SEQUENCE LENGTH:281
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04660
25 SEQUENCE DESCRIPTION:
GATCCACAGC TTGCAGGAGA AAGTCAGTGG CCCCAGACAC ACGTAACAGG GTGAGCACTG 60
AAATAAGAGC ACGCTGGGGC GTCCACACCA AGGGACTACG CCCCAGTCTG CCCACCTATC 120
TTTTCTCCAT CATTAAACCA GCGCTCTTTC TCCCTGGACT TCCAAGTACC AATGACCTTG 180
GGGCTTCTTT GCAGTTTAAA GGGAAAATGC TCTACAAANT AATTTCAC TN TCAAACANNT 240
30 CAGCAGAAGA ATAAATNTT TTTTCTGGNA TATCTAGTAA A 281

35 SEQ ID NO:3936
SEQUENCE LENGTH:280
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04661
SEQUENCE DESCRIPTION:
40 GATCCAATCA CATGGCAAAT GCCTCCTTTC ACAATAGAGC ATGGTGCTGT TTCCTCACTT 60
GANCTGAAAC TTCATAGAAG ACCAGGTGAG ACCACAGAAT ACTAGATGNN AATGTTTCATG 120
TAGGTAAGCT TTATATTTCC TTCCAAGCTC CATTGCTACA AAGGTGTAAT TAAAATACAT 180
TTTTATGAGT TGAAGTAACT TCATGGTAGA AAATAATAAC TCTGCCTTCA AAAGCAAATA 240
ATGGTTTCTT TGTTAACCAA TAAAGCATAA GANAATGAAA 280

45 SEQ ID NO:3937
SEQUENCE LENGTH:278
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
50 CLONE:HUMGS04662
SEQUENCE DESCRIPTION:

55

EP 0 679 716 A1

5 GATCTTTAAA TTTTGTCTT TAGTTAAGTT CTGTATTTAG TGAATTAATT GCATCCTAAA 60
AAGTCAAACT TGAAGAAGCAC ATTTTAAATG GCAAATCTAT TTTTACATG TTTGTGAAGT 120
TTTTATTTT TAGTAAACAG ACCATCAGAA GAGAACAATG GTACAGAGCA GGGGTCAGCA 180
GATGGATTTT GTANNGCATC AACTTGTAAG TATTTTCAAG TTTATTAGCT GTATGGCTCT 240
GGTTTCTGTT CCCTGTTCCA AATGTTAAAG TCTACTGN 278

10 SEQ ID NO:3938
SEQUENCE LENGTH:301
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04663
SEQUENCE DESCRIPTION:
15 GATCGACATT TAAAAAATGA GGTGAAAGAA AGCTATAGTG GCATAGAAAA AGTATAAAGC 60
TCAGTTAGTT TTTTATTAT TATTATTATT AAAAGTTAAT TCAGGACTGA TGTGACCTAC 120
CAGATTTTCA AACATGTGTT AATAGTATAT ATGCCACTGA AAAGTTAGGT CCTGTATCAT 180
ACTTTTCTCT TTAAGACTTT TTAAGAAATA TTAAGTAAAC ATGTGGCTTG CTCAGTGTCT 240
20 AATTGCAAGT TTTCAATCTT GGACTTTGAA AACAGGATTA AACGTTAGTA TTCGTGTGAA 300
A 301

25 SEQ ID NO:3939
SEQUENCE LENGTH:276
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04664
SEQUENCE DESCRIPTION:
30 GATCTCCCTT TTACAGATAT CAGAAAGCAT GAAAAAATA GAATTGGATT TAATGCTTTG 60
CAGATATTCT GTTTTTTTC CCAATTATTT GATTTCACCT ATATACATAT TCTTTNNTCT 120
TTTTCTAGC TTTAGAAGCA AACCAACAAA AGCAGTTTGG ACTTTAGTAA CTTTTTTTAA 180
CAGCAGCATT TAGAACAGTT TGCATGTTCT GAGGAATATT ATATGTGTGT TGGGGGGAAA 240
35 GGAATTCACA CTGAATAAAT TTTAGAAATA ATTAAA 276

40 SEQ ID NO:3940
SEQUENCE LENGTH:277
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04665
SEQUENCE DESCRIPTION:
45 GATCTTACTG CAAAGGAAAC TGACAGAAGA AAAAGAAAGT GCTTTTGAAT TTNTTTCCTC 60
TGCGTGACTA GACAATGATG TTAATAAATG CTTCAAAGCT GAAGAATCTA AATGTCGTCT 120
TTGACTCAAG TACCAAAATA TAATAATGCT ATACTTAAAT TACTTGTGAA AAACAACACA 180
TTTTAAAGAT TACGTGCTTC TTGGTACAGG TTTGTGAATG ACAGTTTATC GTCATGCTGT 240
TAGTGTGCAT TCTAAATAAA TATATATTCA AATGAAA 277

50 SEQ ID NO:3941
SEQUENCE LENGTH:279

55

EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04666

SEQUENCE DESCRIPTION:

GATCCTAAGC CATAGACAGG CTAATTGCCC ACCACTCCCA GGAATATTGA AATAGCTACA 60
TGACCATAAT GTGTTTAAAA TGTGGTATGC TCTTGAGATA TTTAAAGTTT TGGCAGTAAA 120
ATACTCTGTT TTTAAGTATG AATGTATTTT ATTCATATTT CCTCTCACA AGGAAAATGA 180
CTTCAGTATA GATTTGTTTT TATTTAAATG CATTTTTTAT TCTTAAGTGG TAGGAAGCAA 240
CATCCAAAAN TGCTTAATAA AATGCTTTTA AGCTGCAAA 279

SEQ ID NO:3942

SEQUENCE LENGTH:273

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04667

SEQUENCE DESCRIPTION:

GATCAACTGG CTTTCTCTA TTATGACTTT AGATGAATCG TTTAATAGA TTTGCTAATG 60
TTAAGACATC TCTGCATTTT TACAAGAATC TGATGTAGTC ATAGTATACT ATTCTTTTAA 120
TATACATCTC CTTTCAATGT TAACAGTGGT TATTTATGAT TGGTTGGTCC ATAGTAGATT 180
TTTATTTTGT GTTCTTATC TGNACTTTCT GATTTTCCTA CAAAGATNNG NGNNNTACTT 240
GTATAATAAA AATAAGAGCT TTAAATNGTG AAA 273

SEQ ID NO:3943

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04668

SEQUENCE DESCRIPTION:

GATCGCGTCC AGATGGAAAA CGGAAGCAGA GGCTTCTAAT CGTCGCATTT ACTGGCTCCA 60
GTGCAACACA TCCATCTGAA AACACTCGGA AGTCTGGTGC TTGGAGAGGG TGCCATTGTC 120
TCTTGATACAT AAGGTCATGA CGTGTCTATG TCAAAAGTTC TTATATATTT CTTTATAAAG 180
CTGAAAGAAG GTCTATTTTT ATGTTTTTAG GTCTATGAAT GGAACGTTGT AAATGCTTGT 240
CAAACAATAA AAATAACGAA AAGTGAAA 268

SEQ ID NO:3944

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04669

SEQUENCE DESCRIPTION:

GATCTNGTGC CTGGAAATAG CCTGAGGTGG CTCAGGAAGC GGAGAAAGGG TGCCAGACCA 60
TTCTCTGGCG GGGACCAGGG CCAAGGCC CAGGGCTGGA AGNAGACCAA GGGGCAGCCG 120
CCCTGGAGGG ACATCAGTGC TTCCTCTTCC ACCCAATTCC CCCACGCGGT TCCATGTTTT 180
CCCACCAGCC TGTTGGCGAA GTTGCTGCTC CGGCATTGAG TACCTNNTNN NNCCAGAGAA 240
ATANNNGAG TTTCTATTTT ATGTTAAA 268

SEQ ID NO:3945

SEQUENCE LENGTH:267

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04670

SEQUENCE DESCRIPTION:

GATCAGATGG TTTAAGGCTA CAACACGAGG CCAATATCTG TATGTNAAGG AGACAGAAAC 60
 ATCAATGTTT GGAGTATATA TTGACCTTCA TTCTTACTTT CTCCTTATTC TCTTATGTAA 120
 CTGTTAATTT TTCCCTTCCT TGGCTCTATG TATTTAATTA TAATAAGCTT TACCTACAAG 180
 CAAAACAAAC CAAACATGAA CAATGAAAAC TACTTTTGGT CATGTAGCAG AAACAGCAGT 240
 CAATAAAGGA GAGAATGAAA CTAGAAA 267

SEQ ID NO:3946

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04671

SEQUENCE DESCRIPTION:

GATCCTGTGA AAGCTGATGC CCATGTGCCC TGAGAGCTGC CTCTCAATCC CTGTCCCAAG 60
 CCACAGCTAT GGCCTTAATG TCACCAGTGT TCTCACCCTC TAGGCCCTGT GCCTGGAGGT 120
 GCCTCCACAG CCGACCAGCA GCCACCCCGC CTGCTTCATC CACATCAGGA GGGTCCGGTG 180
 AGGCTGCAGC AGTGGTTAAG GAGTAACACC TTCTTGTATT AAGGAATTTT AAATAAATA 240
 AAATGTATGT TGGAGATACT GTTAAA 266

SEQ ID NO:3947

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04672

SEQUENCE DESCRIPTION:

GATCCCTAGG TCTTGGGAGC TCTTGGAGGT GTCTGTATCA GTGGATTTC CATCCCCTGT 60
 GGGAAATTAG TAGGCTCATT TACTGTTTGA GGTCTAGCCT ATGTGGATTT TNNCCTAACA 120
 TACCTAAGCA AACCAGTGT CAGGATGGTA ATTCTNATTC TTTCGTNCAG TTAAGTTTTT 180
 CCCTTCANCT GGGCACTGAA GGGNTATGTG AAACAATGTT NAACATTTT GGTAGTCTTC 240
 AACCAGGGGT TTTTCGGTT TAACN 265

SEQ ID NO:3948

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04673

SEQUENCE DESCRIPTION:

GATCTAGNAA ATGCATATAT TTAGCGGGTA TTTGAAAGAT AGAAGCATT TTTATAACTG 60
 AAGAGTATAA CACTTATCTN CTTAAGTAAA TGCTCTCATA ACTTGATAC ATTTTNCAG 120

EP 0 679 716 A1

GTACAAATTC AAAAGTATGT AAGCATTGTA TAATGTGACA ATTGTATAAT TTATGTAATC 180
TGATGCATGA NTCAGAAATTT TTATATAATA TATGATTATN GACTTATAGT TGATTAANGT 240
GTTTAANCTT AAAANANAAAN ANNNN 265

SEQ ID NO:3949

SEQUENCE LENGTH:263

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04674

SEQUENCE DESCRIPTION:

GATCTCTAAA CTAGCTCTTT TGTTAGTATC GTCTCACAAA CTGATTATTT TCCTCTTTCT 60
TTGGTAAGGT CAATAACTGG GAGATGGACA AACTAGAGAT GGAAGATGCA GTCACATTTT 120
TGAAGACTAA AATCTATTCA GTAGAAGCTC TTCCTGTTGC TGCTGTAAAT GTGCAAAGCA 180
CACAAATAAG TGAAATCAA CCTTTTCATA TTAGGAGACA TGCATTTGTA AAAATTAATA 240
AAGATGACAA GTCAGTTNTC AAA 263

SEQ ID NO:3950

SEQUENCE LENGTH:261

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04675

SEQUENCE DESCRIPTION:

GATCCACACA CTACAGGAAA CAGTTGGCTT TGGAAATCCA TCTTTCTGAT ACCCCTCCAG 60
CTGAACAATT TTCTGCATGG GACTCTGAGT TCCTTTCCTT CCCAGAGAGT TTTACCGTAT 120
GAAGCCTGGA GCTGGAGAAC GAAAGAATCT TCACTATAAA CAGAGACCCA TTCATTTATT 180
TCCATTGGCT GTGTTACTGG ATGTTTACT GGTGACGAG AAAGTGGGTC ACAATAAAAA 240
AATGGAGATA TGAAACTCAA A 261

SEQ ID NO:3951

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04676

SEQUENCE DESCRIPTION:

GATCTGTTTG TAATACAAGG TATTTGGNCT TGTCTTTAAC TGTATAGTGA TTTGTGGGCA 60
GGCTGCAGGA GCCAGGATAA AGAATGCATG TTTGAAATCT NCTCTATACA AATGCATCCA 120
CACTCTCCNG CAAAGGGATG AGTTTCTTAG CCGTTTTCAC TTGATACAAA TGCTATTGTT 180
TCCTTTGGAN GGNGTGAAAA ANTGNANGCT CCACCTGCTC CGTGAGTAGC ATTGCTCTCA 240
ACTGGTGTTC CCAGCCGTTT ACATGTCTAC CCATTCTCTC CCTTANGGTT TTCTTAGGGN 300
GCNGGGNGNT GNNTN 315

SEQ ID NO:3952

SEQUENCE LENGTH:258

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04677

SEQUENCE DESCRIPTION:

5 GATCTAACT TGATATGTTA AATTTAAATT TAATTTCCCC AAGTGTGAGT ACTATATGTN 60
 ATTGTAGATA ATTTGCAAAC TACAAAAAAT AAAAATAATT GGCTGGGCGT GGTGGCTCAT 120
 GCCTGTAATC CCGGCGCTTT GGGAGGCCGA GGTNGGTGGA CCACCTGGGG TCAGGAGTTC 180
 AGGACCGGCC TGGCCAACAT GGTGAAACCC GTCTCTGCTA AAGGTATAGA AGCTNGCCGG 240
 GTGTGGTGGT GGGCACCN 258

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SEQ ID NO:3953

SEQUENCE LENGTH:258

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04678

SEQUENCE DESCRIPTION:

20 GATCCTCACT CAACGAAAC TCGNTTGGAA ACTGTTCCGN CTGGCAGTCC TTTTTGTTG 60
 TTTTCCATCT CATTCCCTT CCATCTGAAA GTGGCATTCA GCTGACTNGC TCATTAGAC 120
 NGTTCACGGA GTCTGAATCT GCCAACGTGG TGTGGAGGC TCCACCTGA AAAGGGCCAC 180
 AGTCAGGGCA ACTTTCCCA TACAGGAAAA CTTGAAAATT ACATCAACAG TCTACGTCAC 240
 AGCCAAATTA TATTCCN 258

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SEQ ID NO:3954

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04679

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SEQUENCE DESCRIPTION:

35 GATCCAGTGG CTGCAGCTTC AATCCCAGTG CTGNANTCAC ACATCCATTC TGCCCTGGGG 60
 GACCCTGGAG CCTACTTGTG CGCTTTGCAT TTCATTGATT GACGNCTCCC TTCAACAAGC 120
 ATTTACTGNG CGCCTACTAT GTACTAATGC TAGANGTTAG ATGTACAAAG AAGACAGTTT 180
 TCATCCTCTA GGNACTCATA GGCTAATGGT GAGACACACA GACANACATC ATTATATTAN 240
 AATANGCTAA GNGAAAA 257

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SEQ ID NO:3955

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04680

SEQUENCE DESCRIPTION:

45 GATCTACAAG GCCACACAGA TAATTNCAAA TACATCTCAT TTCCTTCTGA TTCAGGCCTC 60
 GGNAGACCCC AAGGGGAAGG AGTTCTCATG GGNCACTATA ATCNATGAAG CTGAAGTTGN 120
 AATATAGANG GCAGATTTAA AGTTACCATT TTTTTTAAA CACCAGCTAT GGTCTTTTCA 180
 AAATTGTACA AGCTGTCAGT ATCACCTGCA CATGAGCAAT TTAGTCTNNN GGNGNGTGA 240
 GAAGTTTAGG TCTTTNN 257

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SEQ ID NO:3956

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SEQUENCE LENGTH:256

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04681

SEQUENCE DESCRIPTION:

GATCTGCCCA CCTCGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCAT GAGTGCCCAG 60
GCAGAGAAGT CCTACACCAC GTGTCAAAGT CGGAACACAA AGGGNCACTG TCTTATTGCT 120
TGGTACAGTA CTCCTGTTTG TTGAGAGCCC ATTTACTAGA GCAGCTCTGT TTGTGCTTAA 180
TGAAAGCTCT TTTCTGAGAG GCAACAGAGT GTGTTCTATC ATAAATGAAG CGCTCTTCAA 240
GAACTTCCTG AGCAAA 256

SEQ ID NO:3957

SEQUENCE LENGTH:254

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04682

SEQUENCE DESCRIPTION:

GATCCACCGT CGGATTCCGT CTGCAGAGGA GGACGTAGGG GGCCGTCACA CCCACCAGGC 60
CTCCCTGCTG TGCTTAAACA CAGGCAGAAG AGGTCATGG CAATATAATA GTCAATGAAC 120
TTTCAGTTTA AATTGTGTAC ATTTTAAAT TGAAGATTT TTACTGTATA TTGATGCATA 180
GTGTGATTCA ATAAATTGCT TGAATTTAA AACTATTTA ATATTCAAAA TAAATATAGT 240
TATATATTTA TAAA 254

SEQ ID NO:3958

SEQUENCE LENGTH:252

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04683

SEQUENCE DESCRIPTION:

GATCTGTTTT AAAGTTGGGG GGTGGGAAAT TTAGCTGACT AGGGACAAAC ATGTAAACCT 60
ATTTTCCTAT GAAAAAATT TTAATGTCC CACTTGAATA ACGTAATTCT TCATAGTTTT 120
TTTAATCTAT GGATAAATGG AAACCTAATT ATTTGTAATG AATTATTTAG ACAGTTCTAA 180
GCCCTGTCTT CTGGGAGTTA TCANTNTTAA AGAGANCTTT TGTGCAATTT CAAATGAAGT 240
TTTTATAAGT AN 252

SEQ ID NO:3959

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04684

SEQUENCE DESCRIPTION:

GATCCGGAGT CTTTGAGGCC ATTNTTGAAC TACTAATTCA ACTAATCCTG AACCACCATA 60
TTTTTCATATT CATCCATGAA GTGTAAAGTG TTCTTATGAT TTAACCACCT TAGCATTGGT 120
TTTTATATTT CTTCAGCCA AAATCTTCCT AACAGTAAAA TAAAGTTTCA AGTTTCATAA 180
GTGCCAATGA TTTTAAATG TTAATAAATT TGTACTAAAT AAAAAATGGCA ACAGGAGCAG 240

GTAAACCTAA A

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SEQ ID NO:3960

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04685

SEQUENCE DESCRIPTION:

5 GATCTTCTAA CTTATAAATG TCAAATATAT TTTTGTATTA GATTGTGCCT ATNATGAGAG 60
 AAATCTTTAA TGTATATTTN ATGTATGCTG AACACATTTT TATAATTTGN CACACTTGGA 120
 GGCATGGTCT AGTAATAATA ATGTAATATG TACCTTGCTG GTTANTATAA CTAAGATTTT 180
 GCCTTTATTG GGTTAGGTAT CTNTTNTTTA TTNTNGCACC NGNTAGCTGN CTTCTACTGA 240
 15 GTAAAGANTT N 251

SEQ ID NO:3961

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04686

SEQUENCE DESCRIPTION:

20 GATCCAACCT CAAAGTAAAA GTTGGAAAGG GCAAGAGTCT TTAAAGCGGA ACTTCAATTC 60
 TTTNNCATG GTTACTTATA TATAATGAAT ATAAATAGAC AAATAGGACT TGGAAAATGT 120
 GGTATATTCT AAGTCAAGAT GCTATGAAGT TGTATAGTT TAAGGGNCAT TCTTAAGAAG 180
 GAATTACTTA AGTNCATTAC TCTNCTCATT TCAAGGACAT GAAAAAGTAA AGGATGGTCT 240
 30 GGCACATTTT N 251

SEQ ID NO:3962

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04687

SEQUENCE DESCRIPTION:

35 GATCCTGGAG ACGCCATTTC CGAGATTGTT CTGCATATTC ATTTGCACAT TGTGTCTGG 60
 GTTGGACATG CGTGTGGGCT TCAGTGTGAG GCTTTTAATA TGTATATCCT GTTATCAATA 120
 40 AAACAATTAT CCAAGTGGTT GAATCCTGTG AGACTTGGCA AGTGTGTGCA AATNAAGTAT 180
 ACTTGACTTT TCAACCTCTT CTTTCAATGT NGCNNTTATA TGANATAAAG TAATCCATTT 240
 ANCAGTTAAA 250

SEQ ID NO:3963

SEQUENCE LENGTH:245

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04688

SEQUENCE DESCRIPTION:

45 GATCGACATG AGATACAGAC GAGAGATTAT GTCTCTTATG GCTTTATCAT CAATTAAACT 60

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5 TAGCAAAGTC TGTTAAATTT ATTTTCAGAGT CTCCCAGCTG TGAAGAGTAG AGTTCCACTT 120
ATGTCATCCA TATCTGCACA GTAATCTTTT TTTTAATCCT AAACCTTCTT AACAGGTTTC 180
TNCTCCTNAT TCTAGACAAT AATGCTATGT GTTTCCTTG AATACCATGA TTTTAAACTN 240
TTAAA 245

10 SEQ ID NO:3964
SEQUENCE LENGTH:245
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04689
SEQUENCE DESCRIPTION:
15 GATCGGTCAT GCTGGGGCCA AAAACATGGC AAGAAACGTC CCACTGTCAA CCTCCGGGGC 60
AAGCGTGTGC ACCTGCAGCT CAGGGCCAGC CCACCACACT GCCTTAGTGA CACTGCAGCC 120
GGGGGAGCCA CAGGCCGCCA GCAGGCTGAG GAACAATGCC GTGTGACCTT TCCNNCNNNN 180
AAAAAACA AAACGCAATT TTTATTCAAA TAAAAAAGG GTAAAAATAA AAGTTAATAA 240
GGAAA 245

20 SEQ ID NO:3965
SEQUENCE LENGTH:244
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04690
SEQUENCE DESCRIPTION:
GATCATGGAA AGTTTCAGTG AAAACCATCA TGCTGTCTTC CAGAACCACG TTCTCCTCTG 60
AGGAGGATGA ATGAAGGTTG GGTTCAGTC ATCATGCCTG CCCTTTTTTT CTTGTATTG 120
30 TTTCTTAAGC ATCTCAGAGT CCTCTCATGG AATTGTTTT CTATTTCCCC TCCAATCTC 180
CACCTCACTC CATATCATAA GACATGTCTG CATTCTGGAA TATTAAACGT GGACATGGCT 240
CAAA 244

35 SEQ ID NO:3966
SEQUENCE LENGTH:244
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04691
40 SEQUENCE DESCRIPTION:
GATCATGCTT TTCCCTACTA AACTTCTGTA ACTGCATGTA TGATACATTA TTGCAGAGGT 60
AAGAGATAGT TTAATGGATT TTTAAAAACA AATTACTATA ATNATCTGA TGTCTCTAG 120
TTGCATTTTG CTGAAATGTA GTGCTGTTCT AAATTCTGTA AATTGATTGC TGTGAATTA 180
45 TCTTTCTGTT GAGAAGAGTC TATTATGCA TCCTGACCTT AATAAATACT ATGTTTCAGTT 240
TAAA 244

50 SEQ ID NO:3967
SEQUENCE LENGTH:242
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS04692

SEQUENCE DESCRIPTION:

5 GATCCAAGCC CTTGTTTCAGA TTTGGTGCCT GATAAGACAG GGGTTTCTCT TTTTGTGACC 60
TTTATTATTA TTATTTTGTT AACTGTTGTA ACCAGTTAGC TGTGTGTTT TAAGATAGAA 120
AGGAACAAGA CTAAGATTGT AAATACTTTG TAAACATCAG CATTTGTACT TGAATAGTAG 180
GATTTTAAAG GGCATTGATA GCATACCAAA CAAAAGGCAA AATAAGTGA CCTTTTATA 240
AA 242

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SEQ ID NO:3968

SEQUENCE LENGTH:241

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04693

SEQUENCE DESCRIPTION:

20 GATCTTCCTC CCATGAAAGA AAAANCAAGA ACCAGAGGCG TAGACTNACT NAAGACACAA 60
CTCCTGGCTT TCTNAAGCTA TGGACTTGGA TTGGATTGCT GGGGGTTTTT AGAGAAAGGT 120
GACAAATTC AGTACCTCTG GCATGCTGTC CCAGGAAACT AGGGCTCCCA CTAACCTATG 180
AGGTTTTTAA ACACATTGAA AATGACATGA CACCTAAAT AAATTTGGAT TTGCTCATAA 240
A 241

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SEQ ID NO:3969

SEQUENCE LENGTH:240

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04694

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SEQUENCE DESCRIPTION:

35 GATCAAGGGT AAGAATAAGT ATCCACCTCT TTCCTTTTAA AAATTTTCCC TCAGAGTCCC 60
TATGTTGCAT ATTNATTCT GTTCAGAATC TAACCTTTCC CTAAGGCTTA TCTTTCTAAC 120
AGATACTAAT TATGAATGGG CATCAACAAC TCTAATTAAA CCATTCTTTA AAACCTCTCT 180
GGGTGTTTTT ACAAAGAAA TTCTCCCATG TTATGATGTG TGTGGTTGCT AAAAAGTAAA 240

SEQ ID NO:3970

SEQUENCE LENGTH:238

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS04695

SEQUENCE DESCRIPTION:

45 GATCCGACT GGCCAGATTG GAACTCCAGC ACTATTCCTT GATACCTCTG AAAGTTGGGA 60
CAAGTAACTT AGTCACTATG TATGAAAAGA GATAATAATA CTAGTACCTT CCTCATACTA 120
CAAGACTACA AGATGTGGTC AAGACCAGAA ATATATAAGC ACTGTAAAAA CAATGTAAAA 180
CCAAATGNAA ATTCTTCATT TGTATCTNCC AAAAATAAAA AAATAGCTAT TTGGGAAA 238

SEQ ID NO:3971

SEQUENCE LENGTH:238

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS04696

SEQUENCE DESCRIPTION:

5 GATCAACCAG AAAAAAAAAA TATNATGAAA TGGATACACA CAGTGGACAC CTGTGAAGTT 60
ATCTTAGCTC CCCCAAACT GAGANGTACA AATTAGTCTC CAAACCTAAT TACCAGTTA 120
CAGGAAACAT NGGGAATAAA AGANCAANTT AACAACACAA AGAAGCAAAC ANCCAANTGC 180
ACAGTTTGGG AAATTCTGCA GAGGTAATGG CCTAGTTTTT TANCCAGTAC ATGTCAA 238

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SEQ ID NO:3972

SEQUENCE LENGTH:237

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04697

SEQUENCE DESCRIPTION:

20 GATCATAAAT GACAGGTGTG TGGAGGTCAT TGCAAAGGAA GGACAAAACC TGAAAGAGCT 60
ATATTNGGTG TCCTGTAATA TCACAGATTA TGGTAGGTAA TGANCCATTT NCCTAATCCT 120
TTCTAAGANT AAAANGTTAC AAAATCATTG AAAGTNCTTA AAAGGAAATC AAGANCTATA 180
TCATAGAGAC TGTCTATCGT CACTTATGCT CATNGTGACC NTACCAAANA NTAAAN 237

25 SEQ ID NO:3973

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS04698

SEQUENCE DESCRIPTION:

GATCGTAGAA GCCAAATGAA ATGTGACATA TCTACTGACT GATGACAAGG GAATTCATT 60
AGGAAGAAGG TAAAGAAACA TCGTTGAGTA GCCTACCTTG ATTTCTGTCA AGTTCATAAC 120
CAGCTTCATN CTTTAAAGG CTTCAGGTTT GAAATTAAGT CAACTGCATG CAGCTTTGCT 180
GATAAATGAA TAATTCTCTT TGATGCCATT TATGAGAAAA GACTTCAATA TCTGTN 236

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SEQ ID NO:3974
SEQUENCE LENGTH:173
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04699
SEQUENCE DESCRIPTION:
GATCTTCCAG TTTAGGAGCA ATTTGGTGAA AGGAGTCGGG TGACCAGAGC TGGAATAACC 60
GTCTGCATGG CTGCACTCTG GTANCAGAGT GNGACAGAN GTAAGGATAG TGTGGAGGGC 120
ACAGTTGCAA GTTGAGTCTT TCCATGAGAC AATGTGCCAA AGTTAAAAA AAN 173

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SEQ ID NO:3975
SEQUENCE LENGTH:234
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04700
SEQUENCE DESCRIPTION:
GATCCCTAAA TAAGTAGTTA TTCTGTTTC CCTGATTTN AACTTTTACT AATAGAATGA 60
GAGTAAATAT TTTGGGTAT GTGGCTTCTT TTGTTCAACA TTGTTTAAAG ATTCATCCGT 120
GTTGCTTGTG TAGCTGTAAT TTGTTTAAAT CTTTATAGTA CATTCAAGTTT TGTNAATGCT 180
TATTGTAGGA CTGTACCATA ATACAGGCAG CATGCTGCTG ATAAACACTG GAAA 234

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SEQ ID NO:3976
SEQUENCE LENGTH:234
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04701
SEQUENCE DESCRIPTION:
GATCCTCCTG CCTCGGTCTC CCAAAGTNCCT GGGATTGCAG GTCTTGGTCT TGATNCCAAG 60
TTTGGGAAAG NAGCTAAGAA GACATCCAC TAGGAAGAGA GAGACTACCT CCACATCAA 120
AATATTTAAG TNATTATCTC AAACAGTGAC ATCTCTTGGG AAAATGGACT TAATAGGAAT 180
ATGGGACTGA GTTCCAGTCT TTTTNAATAA AATAAAATCA AGCAANATCA TAA 234

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SEQ ID NO:3977
SEQUENCE LENGTH:234
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04702
SEQUENCE DESCRIPTION:
GATCAACCCC GTGAAGGTGG CCAACCTGGT GAAGGCGTAC GTGGACAAGT ACAGGCACAT 60
ANNCAGGCA CANGAAACCA GAGGCCGGG AGGAGCCGCC CACGCAGGGG GCCGAGGGCT 120
GAGGCCAGGC AATCAGGGC TATGCCNGG AGCTGTCGGG AGTGGCGGGA ATCGGGGCCA 180
TGCCCGGGGA GCTGTCGGGA GTNGCGGGAA TNGGGGCCAT GCCCGGNGGA GCTN 234

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SEQ ID NO:3978

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04703

SEQUENCE DESCRIPTION:

GATCATCGCA TTGAAATGGT TTTGGGAAGT ATGGAAAATT AAATGGATTT TTGAGACACT 60
 AGTTTATTGG CTATGCAAGT GACAGTTTTG AAAAAGGCTG AATCTTATTG TTGGAGCCTA 120
 ATGTAAATGC ATATATAAAT TCTGACTGTA TTTCAGTCAG TGTTCCTTG GAAAAATTCC 180
 CAGATTGGAA GCAGAAAGTA CAGACCAAAT AAAGATTATT CACCCACCAA A 231

SEQ ID NO:3979

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04704

SEQUENCE DESCRIPTION:

GATCGCTCTC ACTGGCCTGC TGCAGATNAG CCAGGGGGAG CCTAGGCCCA GCTCCTCCGC 60
 GGTGGGCCCC CCAGACCATA CCTCTGACCC ACCCAGCCCC CNNTGGTAGC CCCAGCAGTT 120
 CTCAGGGTGC TGACCTCTCT CTCCCACAGA CCCCAGACAC CCATTGTCCA TAGCCTTCTN 180
 AGGGCAGAGT GGGCTGGTTG TGTGACAAT AAAACAGTGT TGGTTGCAA A 231

SEQ ID NO:3980

SEQUENCE LENGTH:242

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04705

SEQUENCE DESCRIPTION:

GATCAAGTCT TGTCAGTTCG TGCCCTCTTT CCCCATGTTC CCTGGGAAGA CGGGTGGTGG 60
 CAGAGTGAGA AGGCCACTGG TTCTGTGCCG CAGCAGCAA AATTAGAAT TCTACAGACT 120
 AGCTCTATAC GTAGTGAGGA CCCAGATTGA GAGAACTGA CCAATATTTA TCTCCGCATT 180
 TGTGTGTGTG TCCAACCTCG TAGGNCATA AACCANCAAG ACAAATGAAC TGTGCTTCCA 240
 AA 242

SEQ ID NO:3981

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04706

SEQUENCE DESCRIPTION:

GATCCACCTC TACACCAGCC CAGGAAGCCC CATCTGTGCC TGCCCTCAGG TGGTCCACCA 60
 GTCTCCCCCT TTGGTTCCCT TCCAGTCTNT TCCCCCTTC TATCCCAATN ACCAATAGAA 120
 ATGCTAACAT CCCTGCCTGG TAGCCAGACT AGCCCACTAA AGCTCCCTG TAAATGGGGG 180
 CTCCATTAGT TCTGCTGCCG AGACTAATAA ACGATTGGT TGGCTCTAAA 230

SEQ ID NO:3982

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04707

SEQUENCE DESCRIPTION:

GATCTATTCC CACATGANGT GCGCCACCGA CACGNAGAAC GTCAAATTTT TTTTCGACGC 60
 TGTCAACCGAC ATCATCATCA AGGAGAACCT CAAAGACTGT GGCCTCTTNT NAGGCAGGGC 120
 CTGTNCTGCA GTCGGGGACA AGGAGCTTCC NTTGGCAAG GCCGGGGCAC AATTTGCACT 180
 CCCCTCAGCT AGACGCACAG ACTCAGCAAT AAACCTTTGC ATCAGGAAA 229

SEQ ID NO:3983

SEQUENCE LENGTH:226

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04708

SEQUENCE DESCRIPTION:

GATCCTCCCT GCCCAAGTCT TACTTCGTGA GCTGGCCTTG CTCCCCATCC CCCAAGTGCC 60
 TCACCAGTCC CCCAGACTGG GTGAAGGTAC AGCTGGCTCC TTTCGGGGGT GCAGCTTCAA 120
 CTCTCTCGGC GGTAGGGCGG TGCCATCCCC ACCCATAGGG CTGGCTCACA TCCAGTCACT 180
 CCCAACAGCG TCCANCACAC AAATAAAGA CCCTTTGGCC CTGAAA 226

SEQ ID NO:3984

SEQUENCE LENGTH:226

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04709

SEQUENCE DESCRIPTION:

GATCACTTGN GGTCAAGNCGT NCGAGACCAN TCTGGTCAAC ATGGCAAAAC CCCGTCTCTG 60
 CTAAAAATGC AAAAATCAGC TGGGTGTAGT GGTGCGTNCC TGTAATCCA GCTACTGGGA 120
 GCTGAGGCGA AAGAATTGCT TGAACCTGGA AGGTGGTAGG CTGCAGTNAG CCAGGATTGT 180
 GCCACTTCAC TCCAGCCCGG GCAACAGNGC AAGACTCTGT GTCAAA 226

SEQ ID NO:3985

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04710

SEQUENCE DESCRIPTION:

GATCCTGGGC CAAACTGATT TACTATTTTA AATTNAGTT TTAATGNGAC AGGGCCTTGC 60
 TATGTTGCAG GGTGGTGTG AACTCCTGGC CTCAAGCAAT CCTCTGCCT CAGCTTGCCA 120
 AAATGCTGGC ATTACAGGCC TGAGCCACTG CCCCTGGTCT GATTTACAAT TTTNAATTGA 180
 GGGTTAGGGA GTCATAATAC CANCAAAGAT GGTAAGGA ATTN 225

SEQ ID NO:3986

SEQUENCE LENGTH:221

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04711

5 SEQUENCE DESCRIPTION:

GATCATCCTC TAAACATTTT ATCATTTATT AATCCTCCCT GCCTGTGTCT ATTATTATAT 60
TCATATCTCT ACGCTGCAAA ATTTGGGTCT CAATTTTAC TGTGCCTTG TTTTACTAG 120
TGTCTGCTGT TGCAAAAAGA AGAAAACATT CTCTGCCTGA GTTTTAATTT TGTCCAAAG 180
10 TTAATTTTAA TCTATACAAT TAAAACCTTT TGCCTATCAA A 221

SEQ ID NO:3987

SEQUENCE LENGTH:221

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS04712

SEQUENCE DESCRIPTION:

GATCATCATC TGTGAAGCAT CATGGTAGCT TCCAAGCATT TCGGGCCAC TGGCCAGNTG 60
20 CATCCAAAAC ACATTCAGGA AACCCGAGAG TTGTAAGTTG CACATGTGTG GCCTACAGTG 120
ACTTCCATGT AGTAACAGGG NTGNCAAGG CANGNTCTCC ACCAGACTTA AAGCATTCAA 180
CCACTCTGCC CCCAGGGCGA CACTGGNCAT GTGGTTCAAT N 221

SEQ ID NO:3988

25 SEQUENCE LENGTH:220

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04713

30 SEQUENCE DESCRIPTION:

GATCTTTTAA AGATNNNAAT AAAGAGCTTT CCTAAATAAA ATAAGCAATA TTAACTTTA 60
GAAACTGTAC TCTATGAAAC GTGTTTTATG AAANCATCTN TTACAAAAAG TGCTTACTTA 120
ACTCAGCAAG AAAGGTTTAA TGTACACATT TNACANCTAA ANTCAAAACC TACAAGAAAC 180
35 TGCCTGCTCT TCACTATTTA CAAATCGGCC TACAAGGAAA 220

SEQ ID NO:3989

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS04714

SEQUENCE DESCRIPTION:

GATCTGGCTA TCTCATTGAT TATATTTTTC TTCCCTTATA CTGCAAAGTA CATCATAGGT 60
45 ATAATTTTAT TTTGAGAAAG AACTATATTC CAATTTTACC TATATATTCC TACTGTAATA 120
ACCAAGAGGA CATTTCAAAA ATGTATATGC TACTATTTTC AGAAGGNTAT AGATACTAAA 180
TCTTTTAAAG CCTTATTAAT CTATGTTTAA TATTGAAA 218

SEQ ID NO:3990

50 SEQUENCE LENGTH:217

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS04715

SEQUENCE DESCRIPTION:

5 GATCTGTTAA ATTGGATTTT ACATGTACAT TTGAATGCCA GAATTTCTAA ATAAATCCCC 60
 TGGTTAGGAA ATTTTAAAAG TCAAAGCTTG TTTTCTTCAA CCACTACCTT CTACATTGGT 120
 TGACTTAGAC CGTAAGCTTT TTAAGTTTCT CATTGTAAT TACCTTCTCA TGCAGATTGC 180
 TGATGTTTTA TTAAACCTTA TTTTACAAA AATGAAA 217

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SEQ ID NO:3991

SEQUENCE LENGTH:281

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04716

SEQUENCE DESCRIPTION:

20 GATCTTATTA GACTCATACA TCTAATTATA GAAATACATA GACTTGATAG AATTTNATTT 60
 TCAGGCNTGA AGAAATATTC TTTGGAAAAG CTAATTTTT GGTGATTGAC ATAAAGATTT 120
 ACTNGCTCAT ATTANCTNGG GGGGNTAGTA CTCTCCAAGA ATTAATGTGC CCTAAAAATT 180
 TTCTCCAAA ANCTTATCCT TATCATGTGA TAATGANGAN CATTGATTT CTTGAAAGGA 240
 GACTGCTGTA GGCAGCATCT GGGAAATGCAA NTNNGGGGNN N 281

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SEQ ID NO:3992

SEQUENCE LENGTH:217

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04717

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SEQUENCE DESCRIPTION:

35 GATCAGCCTG GGCAACATAG CCATAGTGAG ACACCAACTC TCTACAACAG CAAAACAAAA 60
 CAAAACAAAA AAACATGCAG CTGGGCATGG TGGTNACACC TGTGGTCCTA GCTACTCAGG 120
 AGGCTGAGGT GGGAGGATTG CTGGAGCTAG GATGTCAAGN TTAGTGANGC TATTCGACCA 180
 CTNACTCAGC TGGNAACAGA NGAGACCTGT CTAGAAA 217

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SEQ ID NO:3993

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04718

SEQUENCE DESCRIPTION:

45 GATCATTTTT TGAGGCAGGA GCATAACACC TTCTCTAGGA TTTGTCAGCT TCTAAAAAGA 60
 GCCTTTTGTA AGGACTTGTA TGAGCTTGGG TTTCACCATC ATTACTGGGG AGGCACTAAG 120
 ACTGCACATA TCTCTGGGTG AAGTAATGTC TACACANCAC CTTTCATAGC AATAGTTCCC 180
 AGCTAGCATA CCTGCTTCTG CCAGTCCAGG GCCAAA 216

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SEQ ID NO:3994

SEQUENCE LENGTH:220

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS04719

SEQUENCE DESCRIPTION:

5 GATCCAGACT ATAATCCTGC TGACCCAGAG AGTGACTCAG CTGACTAATG GACTGTCCCC 60
 ATCTGCAGAG AGGCTTGACT GCCACAGCAT CTGTGGCTAT GCTCAGAGGG TTATGATTTT 120
 CCTTTCTTTT NNNTAAGAAA AAATTATTTT CAGGAGAATA TTCTTCTGAT AGCTTTCATC 180
 ATTGAACTTA ATAACTGAC CTTAAAAATT CAAATATAAA 220

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SEQ ID NO:3995

SEQUENCE LENGTH:215

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS04720

SEQUENCE DESCRIPTION:

20 GATCTAAGGA AGAACTTGCT GCTGCAGTAT TGAACTGTG AAGAACTGAC ATTTGAAGAA 60
 AAATAGATTA CCGTTGCGGG ACTAGAATGG GCGACTGCTT GGAGCCAGTG CTTGTTTTTA 120
 TCTAGGACAC TTAAGTCTCT GTGAAGTAGA ATACATTTAT CTGCATTTAG TTTGTTAATG 180
 TCTGAAATGA ATAAAAAGAG GAAATTGCCA TTAAA 215

25

SEQ ID NO:3996

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04721

SEQUENCE DESCRIPTION:

30 GATCCAGAGA CAGAGGCAGC CTGTCTTTTC AGTTGGTTTC TGCTTTTAAT TTACTTGTAC 60
 AATTCATTGT TACTGTTCTG TTTTTCCTAT TAATCTTTTG TCAACTTCCT GATTATGTAA 120
 CAAAGTATGT ACAGTCTACT TTTGACCTAT TTTTATCACA GTATNATTNA TTNCTTCTTT 180
 CAATAAAGTA CTNGNGCATA TTTCCACTGC CAAA 214

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SEQ ID NO:3997

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04722

SEQUENCE DESCRIPTION:

45 GATCCGNAGT TCAAGGGAAG AGGAAAGTTGC CTCTNAGCTC CATCTCTCTG CGCTGCTAGA 60
 CATGGTGGAC ATTTGAGCAG CCTGACCTGT GGGGAGGGGG TCTCTCCCGA AGAGTTTCTG 120
 TTTTACTCA AAATAATGTT ATTCTCAGAT GCTTGATGCA CTGTTGGAAA NGGGGATTAA 180
 TTTAATCATG CAGATAAACC ATTTAAATGT CAAA 214

50

SEQ ID NO:3998

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04723

SEQUENCE DESCRIPTION:

5 GATCGAAACC AGCCTGGTCA ACATGGTAAA AACTGTCCC TACTAAAAAT ACAGAAATNA 60
 GCCAGCAATA CAAAAATTGG CAGCTGTAGT CCCAACTACT TGGNAGGCTG AAGCACAAGA 120
 ATCGCTTGAN CCCAGGAGGT GGGAGGTTGC AGTGAGCTGA GATTGCGCCA CTGCACTCCA 180
 GCCTGGGCGA CAAAGCGAGA CTCTGTCTCA AA 212

SEQ ID NO:3999

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SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04724

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SEQUENCE DESCRIPTION:

20 GATCTCAGNA ATTGAAAAA TTGTCCTGTC TGTCACCTGT TTTGTTGCCT TAATAAGCAT 60
 CTGAATGTTT GGTGTGGGG CGGGTTCTGA AGCGATGAGA GAAATGCCCG TATTAGGAGG 120
 ATTACTTGAG CCCTGGAGGT CAAAGCTGAG GTGAGCCATG ATTACTCCAC TGCCTCCAG 180
 CCTGGGCAAC AGAGCCAGGC CCTGTATCAA A 211

SEQ ID NO:4000

SEQUENCE LENGTH:210

25

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04725

SEQUENCE DESCRIPTION:

30 GATCAAGGCT ATGAACATCT TGTGAAGTAG GATGTTAAGT CTGCAATAT CAGAGTGAAT 60
 CCAAACTTAT CAATTCAACA CTGGATTGTA AAACAGCTCA AAAAAAGACT AAAAAACAG 120
 CTCTACACTT TAGGAGGTTG GGGCAGGCAG ATTGCTCGAG CTCAGGAGTG GGAGACAAGT 180
 TTAGGAAACA TGAAAAAACC CTGTCTCAAA 210

SEQ ID NO:4001

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SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04728

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SEQUENCE DESCRIPTION:

45 GATCAGCATT CATACCATAG TAACTGATGT TGAAAACAGC ACAAATAAAC CAGAAGTTGA 60
 AAATGGCAAT AACATGCTAA AAATTTGCAA GTCAATTGTA NNACACTTGT CCAATCTTG 120
 ATTTTTTTC CTTCTCTATC GTTCCCCCCC CACCACCAGC TTTATGGAGG TATAATTAGC 180
 AAATAAAAAG TATACATATT TAAGGTAAA 209

SEQ ID NO:4002

SEQUENCE LENGTH:209

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04729

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SEQUENCE DESCRIPTION:

GATCCTATGA ATTAATTCAG AAAGCAACTA AAATAACAAT GGCCTGCCAA ATGTCATTTT 60
 GTAAATATAC GTCTATGACT TTAGGAGCTG TCCTGGTTTG AAAACATGAG GACAGTTTAT 120
 CCATTGGATG CCATCTATNT AGTCCCAATT AAGAAAGTTG TTTTTTGTG AGAATGACCA 180
 AGGTAAATTT AAATATACCA TTCAAACAN 209

SEQ ID NO:4003

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04730

SEQUENCE DESCRIPTION:

GATCGATGAA GCACTTTTTT ATTAATATTT TCCTTTGTTA AAGGAGGAAC CGTAACTCTC 60
 CATAGCTGTA CATATAACCC TTTTCTCCTA AAGAGGAGTC AGTCAGTGCT CCTATATTTT 120
 TCATTTTTTG TCAAAGCAAG AAGTAAATAC TTTAGAATTG TTAAATATAT AAATAAAGCA 180
 AATAAAGTTG AGTGTTCAC ATGGTAAA 208

SEQ ID NO:4004

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04732

SEQUENCE DESCRIPTION:

GATCTTTCCA CATACTAC ATTGTATTGT TCAAAATTCA TAGAAATNAC TTGCAATATA 60
 TTGATTAAAG CCTATGTAG TGACTGTTGC TATATTTAAA GTAGCATTTT NAGTTTGCTG 120
 TTTTCCTCA CTGCTTAATC CTACAAAAAC CAGCCATCTG CCTAAAAAAT AAAAGAGCAA 180
 AANTGNATCA GTGCAACCGG TATACGN 207

SEQ ID NO:4005

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04733

SEQUENCE DESCRIPTION:

GATCCACATC TCAAAGAAGT GGGACTTCAC CAAGGTNCAA TGCTGATGAA TTTGAACNCA 60
 TGGTGGCTGA AAAGGGGCTC ATCCCANGAT GGCTGTGGGG CAAGTCATCC CAGTCGTGGC 120
 CTATGGCAAG TNNNGGCCT NACTCATGAG GGCTTCAATG TGCTGCCCCC TCTTAATACT 180
 CACCAATAAA TTCTACTTCT GTCCAAA 207

SEQ ID NO:4006

SEQUENCE LENGTH:205

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04734

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

5 GATCTACATT ATTCAGCAGC CTCGAAAATG TTAAGCCTGG ATTTAAAACA CAGCCGTCTG 60
GCCAGCTGCC TCGAATATCT GACAGCTTAG CAAAAGGGC CANAGCTTTC CATAGGCGTG 120
CTGCACTTGC TTGGTAAATT AAGCAGCTTT TGTATCTTCC CCTTTGACTT TAGGTAATAA 180
AGCATCCAAA CTTGTAAATC TGAAA 205

10 SEQ ID NO:4007
SEQUENCE LENGTH:204
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04735
SEQUENCE DESCRIPTION:
15 GATCTGGGAT AAAACCAGAC TGAAAGGAAT ACCTCAGAAG AGATGCTTCA TTGAGTGTTC 60
ATTAACCAC ACATGTATTT TGTATTTATT TTACATTTAA ATTCCACAG CAAATAGAAA 120
ATAATTTATC ATACTTGAC AATTAACGA AGAATTGATA ATAACGAAT GTGAAACATC 180
AATAAGACC ACTTAATGCA CAAA 204

20 SEQ ID NO:4008
SEQUENCE LENGTH:203
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04736
SEQUENCE DESCRIPTION:
GATCTNCTTT TTACTACTAT AGTTTGTATT CCTAGAATTG TATATAAATG GAATCCAACG 60
GGCACAGTGA CACATGCCTG TAGTTCCAGC TACTTGAGAG GCTGAGGTGG GAGGATTCCT 120
TCAGCCCAGT TCAAGGCTGC AATGAGCTAT GACCACGCCT ATGCACTNCA GCCTGGGCAA 180
30 TATAACAAGA CCCTATATCT AAA 203

35 SEQ ID NO:4009
SEQUENCE LENGTH:202
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04737
SEQUENCE DESCRIPTION:
40 GATCTGAAAA GAATTTNTAT TTTAATTGGG TTGAGGGAGA GTAGATACAA TGAAACCTTA 60
AATTTAGCT TTNATTCTAA ACCCTTTAAT TTTTATGGG TTATGTTTGA CTTGGCAAAA 120
CTATCTGTGT TTCTNTCTTA GTGATATAGC ACCCTTAAAG TAACCTGAGT GGTAAAGGAA 180
ATAAAATACA CCAGTTTCA AA 202

45 SEQ ID NO:4010
SEQUENCE LENGTH:201
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
50 CLONE:HUMGS04738
SEQUENCE DESCRIPTION:
GATCCTCTTC CTGCTCCAGT TGCTGGCCGA CCACGTCCCT GGC GTTGCC TGGTCACAAG 60

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GCCGCTCATG GATTACTTGC CCACCTGGCA GAAAATCTAC TTCTACAGTT GGGGCTGACA 120
 GACCTCCCGG AAGGAGGGTG TGGGGAGGGG TGGGGCAGGG AGCCCCTCTT CCCTAATAAA 180
 ACTGACTCCG GCAGCGTCAA A 201

SEQ ID NO:4011

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04739

SEQUENCE DESCRIPTION:

GATCCTATTT GTACAAAAA ATGTAAACT TAAAATTGCA CAAAATTGT NACCTGTACC 60
 AGCTTTTAGA ACTGTTTATC TTATCCTCCT CAGTGATACA TCATGAAGTT GTGTGCTTTG 120
 CCTAAAATGC CCAGTTACCT GAAATTGTAT AAATNCTTGC CAAAAGTGT TGAACCTAAT 180
 ACAAACCTCC CATCTCTTAA A 201

SEQ ID NO:4012

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04740

SEQUENCE DESCRIPTION:

GATCTCATTT TATTTAGCAT CAGCTCAAGA AACTNAAATC TTAGTGCACA GTATCACAAC 60
 AAAGAAAAAG CTTTGTTTT ATAAGTGGTA AAAACAAGAA AAGATTCTCA TCAAAATGAA 120
 AATATAAAAT TAATCATTTC TCACCAAAGA GTATGCCTGG GAGCCTCCAG CTGTAAAAAG 180
 NCAATGCTAT TACTACTTCT N 201

SEQ ID NO:4013

SEQUENCE LENGTH:200

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04741

SEQUENCE DESCRIPTION:

GATCCAAAGTT GCCCTTGGGG TATAAACTT GACAGCAGAG GGCCTTCAGG GTCCCTCAGC 60
 TGCAGTGTGA AGTGGGACAC ACAGGTGAGA CTCCATCTGC CCTGGGCAGG TTCCTGAGCC 120
 TTNGGGGACC AGTTCACCCT ACATCCCAGG CTTCTGTTGT CCCTTGCCTG CCTGTAAGGA 180
 ATAAAGTTGC TTTGCTTAAA 200

SEQ ID NO:4014

SEQUENCE LENGTH:200

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04742

SEQUENCE DESCRIPTION:

GATCTGACCT TTTCTTCAGA TACATAAGCA TTATTTTCTC TGTTTAGGTC CAAGGAAAAA 60
 CAAAAGGTAA AGGNAATAAA GGGAATATAC ATAAGGCAAA CATTTCTCTT TTTTTTTTGC 120

ATTATATCTT ACCAATTAAT TAAATTGTGG CCTTTGTTAT TATAAATGTA ATGATTCATT 180
AAACTATATT ATGTAATAAA 200

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SEQ ID NO:4015
SEQUENCE LENGTH:200
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04743

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SEQUENCE DESCRIPTION:
GATCCTATGA CTGACATCAA CTAAAATTTA AAAGAAGAGG AAGACTCAGT TGGGAAATTT 60
TNCCATGAGG AAAATGTGCT TTGGTGCAAG GTACAAGGCC CACACCCTCT CTGAGAGATA 120
CTATGATTAA AAAAGCTTTA TATCTTGGGA TTTNCACAA CTGATAATGT GCAAAGNTAT 180
AAACNGATTA ACTTGTCAAA 200

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SEQ ID NO:4016
SEQUENCE LENGTH:200
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04744

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SEQUENCE DESCRIPTION:
GATCTTTCAA GAATGAACCA AGGNTTTTTA AAAGAATTAT AGGAAACACT TCATTCTTTA 60
TAAAACTTTC TATAATGCCT TATTTGAATG TTAATCTTAT GTGCTTTCTA AAAAATGTTG 120
TGAAATACCA AACTTATGGA TTATCACTAG GTTATCAAGC ATATATNAGT CTTTATCAGA 180
NTAAATGAA ATTNCATAAA 200

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SEQ ID NO:4017
SEQUENCE LENGTH:199
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04745

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SEQUENCE DESCRIPTION:
GATCTGAGAG GCAGTAAAGC AGTGATGAAG ACAGTGCAGC AGAACATTGA AGTCCTGATT 60
GCAGCAGTGA CTCTGCAACC TTGGATAAAT TATTTCANTC TTTATTTTGT AAAACGGAGA 120
TAACGGCCTA TAGGATTNTN AAGACTGANT ATTTTAAAAG NGCTTAGAAT GGTGCCTGAC 180
AAATGAGNNN CANTAAATN 199

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SEQ ID NO:4018
SEQUENCE LENGTH:199
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04746

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SEQUENCE DESCRIPTION:
GATCATGTGA TTTCTATTTT TNCACACAG GGTAAGGGAC GAGTCTTCTG GAAGGCTCTG 60
CCATGGACAT TTGTCCTCGG GCTCAGAGGC CCCACCCTGC CCCACACCTG CCCCTAATCA 120
CTGCAGTGTC CAGCCCAGTG TTGAACAGAT TGTAGCGTTC TGTCTCATTG CGAGCAAATA 180

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AATAGACTTT CATTGGAAA

199

SEQ ID NO:4019

SEQUENCE LENGTH:198

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04747

SEQUENCE DESCRIPTION:

GATCACGCGG CATGTATTGA GGTGTGGCAT GCAGCATTTT GGAAGGAAAA TTGAAGACGT 60

GTTCAAGAAA ACATGAACAG AAGCAAATNA TGAAAATGAG CATTTTACTT GATGTTGATA 120

ACATCACAAT AAATTATGGA GAAAAATACA TATTTGGCTA ACTTTTAATT GCTGANCAAT 180

AAAGTGTTTT CTTTAAA 198

SEQ ID NO:4020

SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04748

SEQUENCE DESCRIPTION:

GATCCCTACC GCCAGCTGCG AGAGAAGGAC CCCAAGTACA GTGCTCTCCG CCAGAATTC 60

TTCCGCTACC ATGGGCTGTC CTCTCTTGC AATCTGGGCT GCGTCCTGAG CAATGGGCTC 120

TGTCTCNCCTG GCCTTGGCCT GGAATAAGG AGCCTCTAGC ATGGGCCCTG CATGCTAATA 180

AATGCTTCTT CAGAAA 196

SEQ ID NO:4021

SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04750

SEQUENCE DESCRIPTION:

GATCATGAAG AAGCAGGGCC TCTACCTACA AAAGTNAATC TTGCTCATTG TGAAATTTAA 60

GCATTTTCT TTTAAAAGAC AAGTGTAATA GACATCTAAA ATTCCACTCC TCATAGAGCT 120

TTTAAATGG TTTCAATTGGA TATAGGCCTT AAGAAATCAC TATAAATGC AAATAAAGTT 180

ACTCAAATCT GTGAAA 196

SEQ ID NO:4022

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04751

SEQUENCE DESCRIPTION:

GATCTGGTTC CAGGGGAAAA AAATAGCTGG TTGGTGTCTA GCCCCCAAC ACTTTTGTCT 60

GTTGTGTATA AAAGAAGAAA GACTGGCATG TACCTTCATT TGCTTAGCTA TTTGAGTATC 120

TAGAGAAAAA TTAATATGCA ATGAGTTAGC AGTATACCCT GGCACACTTA ATAAATAAA 180

CATTTGTGGA GCAAA 195

EP 0 679 716 A1

SEQ ID NO:4023
 SEQUENCE LENGTH:194
 SEQUENCE TYPE:nucleic acid
 5 TOPOLOGY:linear
 CLONE:HUMGS04752
 SEQUENCE DESCRIPTION:
 GATCTAGAAG CTGGTAAAAA TGACAATATC AATCACATTA GGGGAACCAT TGTGTCTTC 60
 ACTTAATCCA TTTAGCACTA TTTAAAAATA GCACACCAAG TTATATGACT AATATAACTT 120
 10 GAAAATTTT TATACTGAGG GGTGGTGAT AACTCTTGAG GATGTAATGC ATTANTAAAA 180
 ATCAACTCAT CAAA 194

SEQ ID NO:4024
 15 SEQUENCE LENGTH:193
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04753
 SEQUENCE DESCRIPTION:
 GATCCAACAG CAACACCATT TTTAAATTAT TGTGAAAAGA TTAAGTGGCA ATGTACAGAG 60
 TTTACTCAA GCCCTTCTTA AGGGAAAACA CTACAAAAG TCACAAGGAT ACCAAATGGA 120
 AACACATGAT GATGCCTCTG GGTCTGTATG AGACCGTGAT GAAGTAGAAA TAAAGCCCTT 180
 20 CTGAGATGGC AAA 193

SEQ ID NO:4025
 SEQUENCE LENGTH:191
 SEQUENCE TYPE:nucleic acid
 30 TOPOLOGY:linear
 CLONE:HUMGS04754
 SEQUENCE DESCRIPTION:
 GATCCACGGT GGGCTCCAGC TGCCAAGNCA CCCAAGGGAG TCTGGGCCCT AGGCCTAGCC 60
 CCATCCCTCC CCATGAGGGG CCAAGACACT GCCTAAGGTG TGGGAGGGAC TGGCTGAGAT 120
 35 TGCAGCCCAT GGTAGGAGCT GGACCAACTG TATATAGTTT TCAATAAACT TTTTCCTTTT 180
 CTGTTCTCAA A 191

SEQ ID NO:4026
 40 SEQUENCE LENGTH:264
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04755
 SEQUENCE DESCRIPTION:
 GATCCAGGAA GTTGGTGAAC CATCTAAAGA AGAGAAGGCT GTGGCCAAGT ATCTTCGATT 60
 CAACTGTCCA ACAAAGTCCA CCAATATNAT GGGTCACCGG GTTGATTATT TNATTGCTTC 120
 AAAAGCAGTG GACTGTCTNT TGGATTCAAA GTGGGCAAAG GCCAAGAAAG GNGAGGAAGC 180
 TTTATTTACA NCCAGGGAGT CTNTGGTTGA CTAAGTGAAC CAGGCTTTTA AAGTAGCAGT 240
 50 TTNTTTCACC GAGCCCTAAA GGTN 264

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EP 0 679 716 A1

5 SEQ ID NO:4027
 SEQUENCE LENGTH:186
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04756
 SEQUENCE DESCRIPTION:
 10 GATCTTCACA TATTTTATAT GNATATATAT ATCAAGAAGT TATATATATA TAACTCAAGA 60
 AACTCAAGTT ATATATATAT GTCAAGAAAT GTATGATTAT TTTGGAGAGA ATGGGCCCAA 120
 ATGTGAAAAA GATATAAAAA AAACAAAAAA AACNNAAAAA AAACCNTNT TTNCCCCTNC 180
 GNANTN 186

15 SEQ ID NO:4028
 SEQUENCE LENGTH:150
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04757
 20 SEQUENCE DESCRIPTION:
 GATCTGGAAG TCACCCTCCT CTGGCCCACG GAAAATTTTG GTAATCTTCT AGGTTCTAAA 60
 ATGAAGATGT ATGGGTACTC TGGCAGACTG CATGTTGTAT AATTTGAAAA ATACTAAAAG 120
 TGGAAAATAA AATTGAATTA AACTTTGAAA 150

25 SEQ ID NO:4029
 SEQUENCE LENGTH:186
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 30 CLONE:HUMGS04758
 SEQUENCE DESCRIPTION:
 GATCAACAAG TTCAAAACAC TGCTAAGTCT AAATCTAAAA CAGACCAAGA GTACCTTCAT 60
 TTAANTTTAG CTTGCACAGA GCTTGATGCC TATCCTNCAT TCTTNCAGA AGTAAAGATA 120
 35 ATTATGGCAC TTATGCCAAA NTTCAATTATT TAATAANGTT TTAATTGAGG TAACATTACT 180
 GATTN 186

40 SEQ ID NO:4030
 SEQUENCE LENGTH:183
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04759
 SEQUENCE DESCRIPTION:
 45 GATCCAACAC AGAGACAATA GAAACATTGG GATTGAAGAG ATTCTTGGA CTGTAAAAAT 60
 CCAAGAATA TGGGATTGTA AAAAACCTGT CATCTTACTG CTATGATAGA TGAAGATTTT 120
 GCTTGCTAT ACCTTGTC TATTCCTCTC TTCCTTTCCT CCAAATATAC TTGTAGGTAT 180
 AAA 183

50 SEQ ID NO:4031

55

SEQUENCE LENGTH:183
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 5 CLONE:HUMGS04760
 SEQUENCE DESCRIPTION:
 GATCTAGCAT TTTAATTCT AGCATTGCTA TTCACCGGCT TCCTTATTTT ATATGTAAAA 60
 ATTAAGATTT TATATTTAAT CTCCTTGTTT CTCATAGATA TTTTGTGAGC ATTTTNTTGT 120
 10 TTATTTTGAA GAAATGTGGA TAAGATACTT GGTAGTATAA AACAGNCTCT CTGAGAGTAT 180
 TTN 183

SEQ ID NO:4032
 SEQUENCE LENGTH:182
 15 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04761
 SEQUENCE DESCRIPTION:
 GATCAAGGTC TGTATATTAT CCCAACTTT ATTAAGAATT GTTTTCTAAT TNGTTATAAC 60
 ATTTTNAAT TAATAGTTTC AAAACAAATT GTTAATACAA CTGTATAAAA TGAACATAAT 120
 TTTCTCACT TGTATTTTGG TTATTGAGCA AGTTTATCAA AATAAATNGT CTACTAAAGA 180
 AA 182

25 SEQ ID NO:4033
 SEQUENCE LENGTH:181
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 30 CLONE:HUMGS04762
 SEQUENCE DESCRIPTION:
 GATCTCTTAT CAATTAGCAC TCACTAATGT ACTACTAATT GAGCAACCTA CGCACTCAGT 60
 TGACTACGTA AATCTGTCAG GTCTTTTGTG ATTTCTCTG ATGCAGGAGA GGAAAAATTG 120
 35 TAATTGATGA AAATAATGAA TGAAATCAA CAGATGAATA AATGGTTCTT TATAAGTGAA 180
 A 181

SEQ ID NO:4034
 SEQUENCE LENGTH:180
 40 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04763
 SEQUENCE DESCRIPTION:
 GATCTGGAGT CCCACGTTCC CCAAGGCCAG CGGGATGTGT GCCCCTCCTC CTCCCAACTC 60
 45 ATCTTTTCAAG AACACGAGGA TTCTTGCTTT CTGGAAAAGT GTCCCAGCTT AGGGATAAGT 120
 GTCTAGCACA GAATGGGGCA CACATTAGGT GCTTAATAAA TGCTGGATGG ATGCAGGAAA 180

50 SEQ ID NO:4035
 SEQUENCE LENGTH:180
 SEQUENCE TYPE:nucleic acid

55

EP 0 679 716 A1

TOPOLOGY:linear
 CLONE:HUMGS04764
 SEQUENCE DESCRIPTION:
 5 GATCCTGTTT GTACAAAGTC TTGCTTTTAT AAGGTTTCAA TAATATCTAA AACAAACACAT 60
 TAAAAAGCTG AGACCATTTT ATGAAGATAA TTGTTTGTA TCATAGGTGT TGAAGTAAA 120
 AAGGTGCCAT CTTGTGGTAT TGACTTGAT TTATAACAAA TAAACTGCTC AAGAGACAAA 180

 10 SEQ ID NO:4036
 SEQUENCE LENGTH:180
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04765
 15 SEQUENCE DESCRIPTION:
 GATCCTGGTT ACAGCCATTT TGTGTGATTC ACTTCGGGGG TTAAGTAATG CAGGATTCTG 60
 CAAACAAGGT GTCGCCGTCC AAATGTACTG TCCTGGCATA GAGAGCACTG CTTGTTTTTC 120
 CACTGTTGTA GAGAAAATA GGGAGAACTT TATTTTCAA TAACTTTTC TTGTGTGAAA 180

 20 SEQ ID NO:4037
 SEQUENCE LENGTH:178
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS04766
 SEQUENCE DESCRIPTION:
 GATCATGTAT AAAAAGAAAA AAAAGAAGTC ATGCTNTGTG GCCAATTATA ATNTTNNCA 60
 AAGACTTTGT CACAAAAGCTG TCTATATTAG ACATTTTGGA GGGACCAGGA AATGTAAGAC 120
 30 ACCAAATCCT CCATCTNTNC AGTGTGCCTG ATGTCACCTN ATGATTGCT GTTACTNN 178

 SEQ ID NO:4038
 SEQUENCE LENGTH:177
 35 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04767
 SEQUENCE DESCRIPTION:
 GATCAGGATT TGGGAAAATT GTGGTCAATA TTTGATTTTC CTTTCTGTT TGATAGCCTT 60
 40 ATCTAAATTC CCCTAGCTTG AATGTAGTAA ATATGAGTGT GTAAAAATGT GTATCTAATT 120
 CACCTCTTNG GGGAGGTTTA ATGTAACAT AAATAAAAT TCTTCCCA GGTAAA 177

 SEQ ID NO:4039
 45 SEQUENCE LENGTH:175
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04768
 SEQUENCE DESCRIPTION:
 50 GATCTTACCT CCTAACCAAC TCCATACATC ATGACCAATG GCTCAGTCCA AGCNGTCATC 60
 TCTTGCTTGG TCACTGCAGG TACTTGCTAA CTTTCTTCCC AATAATCCAA CCCCACAGA 120

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GCAGCCAGAG TAGCCTTTT TTGTTTGT TTGTTTGT TTGTTTGT TTGTN 175

SEQ ID NO:4040

SEQUENCE LENGTH:175

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04769

SEQUENCE DESCRIPTION:

GATCTTAATA GCTAAATAT GAAAAATATT TGGNAAGTCT GAAATNAGGT CTCCTGGCCC 60
TGGTGTGCCC TTAATGCCTG TNACAGTTGG CCTCTGTGAA TATTGGTATA ATTNTAAATA 120
ATGTCAAACT CCATTTNTA GCAAGTATTA ATAATTAAGG GAAGTATGTC TGAAG 175

SEQ ID NO:4041

SEQUENCE LENGTH:174

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04770

SEQUENCE DESCRIPTION:

GATCCTCAGG ATATGCAGG CTCAAGAGAA ATGAAATATC TTGGGGATAT GGTTACTTAA 60
GACGTGATAC TGTACAGTG AATTCACAG AAGATGGTGC TGCCCTAACT GAGGTTCAAT 120
CCATGTATAA GCCAGACCAA TCTGAAGACA AATAAAGTAT TTCACAGCCA CAAA 174

SEQ ID NO:4042

SEQUENCE LENGTH:171

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04771

SEQUENCE DESCRIPTION:

GATCTTCAA CATTAACCTA AGCAGACCAA AAATTCTGAT GACCGCATCT AGATTATTTT 60
TTTATAAAA TGATTTTAC TATAGCTATG TTACGCTAAG CTACTGTCCA ATCTCTTGTG 120
ATGTGTAAC TTTACATGTG AATATTAAG TAGATTTCTC TGTCTTGTA A 171

SEQ ID NO:4043

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04772

SEQUENCE DESCRIPTION:

GATCTTTAAA GATGTGCTAA ATGACTTTTT TGGCCAAAGG CTTAGTTGTG AAAATATAA 60
TTTTTAAATT ATACATTCAA GGTAGTGGCC AAATGTAACA CATCAATCAT GGAATGATTN 120
CTCTGCTAAC AGCCGNCTGT ATGTTTCAAT NAATTGTCC AAAGCTCAA 170

SEQ ID NO:4044

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear
 CLONE:HUMGS04773
 SEQUENCE DESCRIPTION:
 5 GATCCTTCCC AGTGGACAGA TGAAGAATTA GGTATCCCTC CTGATGATGA AGACTGAAGN 60
 TGTAGACTCA GCCTCACTCT GTACAAGAGC CAGGTGAGAA TTTCAAGGAT TATCGACTTC 120
 ATATTGCACA TTAAAGTTAC AAATTAAGT GGCTTGGTCA AGAATGAAA 169

10 SEQ ID NO:4045
 SEQUENCE LENGTH:169
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04774
 15 SEQUENCE DESCRIPTION:
 GATCTAGTGT GTAGTGAGCT CAGTATAGAG GACAGAGCTT TCATCATGTA AATTNATATG 60
 CAAAGCCAAA TNAACGTGG TGTGTACTTC CTA CTGATGC GTCAGGGTAT AGGCCTCTTT 120
 TTCTGCCATT CAAATAATGG AAGTTAATTA AATTTTAAAC AAATGTAAA 169

20 SEQ ID NO:4046
 SEQUENCE LENGTH:169
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS04775
 SEQUENCE DESCRIPTION:
 GATCCATACT GAAAAAATNC TGAGCCAGCC ATCTTTGGCA AAGNNCCCTG AGCTCTTGCT 60
 ATCTCTCAAG AGTGCTGAGA NCCACGGTGA AAGTNCCTGCT CTAGGCCAC AAGTGTAAGT 120
 30 ATGCTGTAA CAGCTGTCAA TAGATAATTA AAATTCATAC TGTATGAAA 169

35 SEQ ID NO:4047
 SEQUENCE LENGTH:168
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04776
 SEQUENCE DESCRIPTION:
 40 GATCTCTGTT CTNGNITGAA TGTATTTAAT TTCCAGCAGA ATGAGCCCCA TTCCTTATTT 60
 TGATTGGCCA TTTATCATGT ACATATGGTG AAATGCCTAT TCGTGACTTA GCCAATGTTG 120
 TTTCTTTTTC TTACTGATTA CTACAGTACA TTTTATATG AAAGCAAA 168

45 SEQ ID NO:4048
 SEQUENCE LENGTH:212
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04777
 50 SEQUENCE DESCRIPTION:
 GATCTGCTGA AGCATCTGTC CAGCTGGTAT CCTGTGAAAG TTTGTAATTT NCTGAGTAGA 60
 CATTCTTATA GAGTATTGTC TTTAAAATCA GATTGTCTCT NCTATATTGA AAGCATTTNN 120

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ATGTTTNCNA ATTTAAAAAT TAATATTTCC TTATAGATAT TGTGCAATAA AGCTGAAGTA 180
GAATGTGTGG TTTTGC AAA TNCTTTAGCG GN 212

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SEQ ID NO:4049
SEQUENCE LENGTH:167
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

10

CLONE:HUMGS04778

SEQUENCE DESCRIPTION:

GATCTTGTCT CACAAAATAA ATTA AAAAGA TTTTAAATA GCAGGTTTCT AAAACAATGA 60
GAAAGACAGC ATTACATATC AGTGTCTACA ATTTAAACAA AGCTATACTT AGAAGTAAAT 120
TCATTGTCTT AACTGCTTTT GTTCCAATAA AACAAAATAG CAGGAAA 167

15

SEQ ID NO:4050
SEQUENCE LENGTH:176
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

20

CLONE:HUMGS04779

SEQUENCE DESCRIPTION:

GATCGTTACT ATGTGTCAA GGGTTTGGAG AACATTGATT AAGGAAGCAT NTTCTGATT 60
GATGAAAAAA ATAACTCAGT TATGGCCATC TACCCCTGCT AGAAGGTTAC AGTGTATTAT 120
GTAGCATGCA ATGTGTTATG TAGTGCTTAA TAAAAATAAA ATGAAAAAAA TGCAAA 176

25

SEQ ID NO:4051
SEQUENCE LENGTH:166
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04780

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SEQUENCE DESCRIPTION:

GATCTATAAC TGTACTTTGC CTGGCGCTGT GCGAAGGTCA GAAAACTTAC TGCTAGTACC 60
TAGAAACACA CAAGGCTGCC CAGCCAAATC TTAATGTAAA GTAGCTAGAG CCATGGAAAGT 120
ACAGTATGAA TTA AAAAGAA AAANGTATTG ANCTTCAAAT TCTAAA 166

35

SEQ ID NO:4052
SEQUENCE LENGTH:163
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04781

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SEQUENCE DESCRIPTION:

GATCTTGTA GTAGGAAAGC TGTA ACTAAA AATTGTATTG TTTGCTTATT AGCCATGTAT 60
CTCTTAAAT TTTGTTATGT TTACAACGAT GTACCTTATT GGCAACAAGT TATTAGTTTG 120
ATGTTTAA CA ATAGTGCCTT TAGTAAATNA TTTTACA ACT AAA 163

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SEQ ID NO:4053
SEQUENCE LENGTH:162

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04782

SEQUENCE DESCRIPTION:

GATCCAAAAG CTGGCTNTCT AACCACCAGC CAAGGGCTCT CTTACCACC AAGCCAACTC 60
TCAGGGCAGC AGCAATGTGT ACCTTATTAA CCTCTGCACC CNAGGTCCTA GCACAGGGCT 120
NGTCCATAAC AGGCGNCCAA TAAACATGTG TCATAATCTA AA 162

SEQ ID NO:4054

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04783

SEQUENCE DESCRIPTION:

GATCCCTGGT CCTGCCGACA CGCAGCTACT GAGAAGACCA AAAGAGGTGT GTGTNTGTCT 60
ATGTGTGTGT TTCAGCACTT TGTAAATAGC AAGAAGCTGT ACAGATTCTA GTTAATGTTG 120
TGAATAACAT CAATTAATGT AACTAGTTAA TTACTATGAA A 161

SEQ ID NO:4055

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04784

SEQUENCE DESCRIPTION:

GATCGGCACC ACACCAGACA TAATCCTGGA CGACTTGCTG GAGACGGACC GCGTCACCGC 60
CCACTTCTAG CCCCGTGGAT GCCGTCACCA CCAGCACACG GAACTACCTC CCACCCCTT 120
TTTGTAACAA ACACAAGGAA AAACATTTTT TGCTTGAAA 159

SEQ ID NO:4056

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04785

SEQUENCE DESCRIPTION:

GATCTAATTC TTTTGATAAA GTTCTAGCTC TAAAAGTGAT AGTGGGACTG TATGTTTTCT 60
GATACTGGTG GCTTATGTTA TTAANCCTTT TTAAAAAAG GTCCACTCTA AAGGCTGANN 120
NCCACCCTAN GTTCCAGCC TCCTGGCCTC NACCNGGGN 159

SEQ ID NO:4057

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04786

SEQUENCE DESCRIPTION:

GATCTTGTGT TCTTTGTGCC AATATGAAAA GGAGAGGGTT GGTCTTTTCC TTTATTGTTG 60

EP 0 679 716 A1

AATGCTCCCA TTTAATGCTT TATGGCTTTT ACTGTATTAC TTTTITAGAC TCCCGTCTGC 120
ACAAAATGCA ATAAAAATAA TTTTATTATA CCCTTAAA 158

5 SEQ ID NO:4058
SEQUENCE LENGTH:158
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04787
SEQUENCE DESCRIPTION:
GATCACACTG GGGAAAAGTG ACAGAACCAA ATTTCAAACCT CCAGTCTTTC TGCTTCTAGA 60
GATTGAACTA CTAACATCTG CATTATATAA AATTAAGTNT CTCAAGGTAG TTTGTGAACG 120
15 TAACATACAA ATAAGTGATT AAAATTTTNG GTGATAAA 158

SEQ ID NO:4059
SEQUENCE LENGTH:308
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS04788
SEQUENCE DESCRIPTION:
GATCCCAAGT GATTAAAATA GGGTTTCTGA ATGGATGTG AATGGCGTGG ACTCGCTACT 60
25 CCGTTCTTCA CAGCTGCCTT CCAGAAATGTG TTCAAAAGAA AGACAAGAAG GAGTGTATGG 120
CTTATAAAGT GAATCTAATA CAGTATTTGT TGCATTTAAA CAAACTAGAC ATTTTCTTAC 180
GGAAAANTTA TGAATACAG CATATTTNAT GTNCTCCCAT TGACTCAATC ATGACAATAT 240
TTCTGCTTTA ACACCATCTT TCATGATTAG NAATGTTTGT NATTGGAAAT GTTACACCAT 300
30 GTAAATAN 308

SEQ ID NO:4060
SEQUENCE LENGTH:155
SEQUENCE TYPE:nucleic acid
35 TOPOLOGY:linear
CLONE:HUMGS04789
SEQUENCE DESCRIPTION:
GATCAGCCCC AGATTTGACG TGCACTCAAA GACCTGGAAA AATGGCAGAA TAATCTGCTT 60
40 CCATCCCGCC AGTTTGGTTT CATTGTACCT GACCACCCTC ACNGGCAANC ATGGACCCAT 120
GAAGNAGCAA NNCGGAAACN CACNAGAGGG AAAAN 155

SEQ ID NO:4061
SEQUENCE LENGTH:155
45 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04790
SEQUENCE DESCRIPTION:
GATCTCATTG GTATGTTTTT TAATGTGTAG AATTAACACT TTAATAATAA CAGGTGTGAA 60
50 AATTATAAAG GAATATATAT GACAATTATT TNCTGTACAT TAATGTCTAA ACATTATACT 120
TACTTTTCCA TAATAAAGGA AATTTTGGAA CCAAA 155

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5 SEQ ID NO:4062
 SEQUENCE LENGTH:155
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04791
 SEQUENCE DESCRIPTION:
 10 GATCTTAAAA CCCAAGACAT TATATTTGAA GGGGCACAGC AAACAGTGCA AGAAAATCTG 60
 CTGATGGAAG ATNATTTTNA TCAGTCCTCA GANCCAGAAA CTATAAACT GGAAGGAAA 120
 GTTTAAATAA AGANTTTATT TCCAAATTCA GCAAA 155

15 SEQ ID NO:4063
 SEQUENCE LENGTH:153
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04792
 SEQUENCE DESCRIPTION:
 20 GATCTAAGNA GGATTCAACA CCTTTNTTGT GTTGCTCAGT GTGTAATGAC TGAGATTGT 60
 AAATCTTTGT GAACATTCTG TACTGGTTCC CAAGAGCTAT TCATTCCCTG CTACCTGATT 120
 TCAGCACAAT AAATATACTT CTGCTGTGGG AAA 153

25 SEQ ID NO:4064
 SEQUENCE LENGTH:152
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04793
 30 SEQUENCE DESCRIPTION:
 GATCTTAGCT GTATGGAGTA ACTATTTTCTG AAAACCCTAT AAGAAGTTCA TTTTCTTTCA 60
 AAAGTAACAG TATATTATTT GTACAGTGTA GTATACAAAC CATTATGATT TATGCTACTT 120
 AAAAATATTA AAATAGAGTG GTCTGTGTTA AA 152

35 SEQ ID NO:4065
 SEQUENCE LENGTH:149
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 40 CLONE:HUMGS04794
 SEQUENCE DESCRIPTION:
 GATCAGAGAA GGCTGAAGAA GGTGGAGAAA CTNAGGCACA AAAAGAGGGC AGTGAAGATG 60
 CGGGCAACCT CCCTGAAGCC CAGGAGAAGA ATGAAGAAGA AGGAGAGACA GCCACAGAAG 120
 45 AGACGGAAGA AATAGCCATG GAGGGTGCA 149

50 SEQ ID NO:4066
 SEQUENCE LENGTH:149
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS04795

SEQUENCE DESCRIPTION:

5 GATCAACTAT GGGTTTATAT AAATNCCAAA TTTAGTACAA CAAATTTAGG TCATCAGGTG 60
 AATACAAGTA TTTTITTTAA CAGGNAACAT TTTATTATAN NAAAAATATT AATGATAAAC 120
 GCATATTGGT TGAAAAATAT TTTTAAACN 149

SEQ ID NO:4067

10 SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04796

SEQUENCE DESCRIPTION:

15 GATCTCTGTG ACCCATACCC TATTNTACA CTCCCTCCCC TTTTGAAAAT CACTAATAAA 60
 AAATTTNCTG GTTTTATGGC TCAGGGGGCA TCACAGAACC TGCCAACATG TGATGTCTGC 120
 CCTGGACACC CAGCTTTAAA ATTTCAAA 148

20 SEQ ID NO:4068

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04797

25 SEQUENCE DESCRIPTION:

GATCATTTTC TTGGGACCTT GAACTGTGAA TGTTTTGTCC TAACCATTTA ATATTTTCTA 60
 GGTACTTGCT GCAAGTNCTT GAACTATTTT ACCAGCTTTA ACTTTGGGGC TCTTAGNTTC 120
 TNTNCTCCAG ATTCTTGTTA TNNNATN 147

30 SEQ ID NO:4069

SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS04798

SEQUENCE DESCRIPTION:

GATCAGAGAA GCAGATATTG ATTGAGACGG ACAAGTCAAC TATGAAGAAT TCGNACAGAT 60
 GATGACTGCA AAATGGAAGA CCTACTTTCA ACTCCTTTTT CCCCCCTCTA GAAGAATCAA 120
 ATTGAATCTT TTACTIONACCT CTGCAAA 148

40 SEQ ID NO:4070

SEQUENCE LENGTH:149

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04799

SEQUENCE DESCRIPTION:

50 GATCTTTTAC AACTGGTGA CCCTGAGAGA GGAGGGAGGA GGAACCTGG CGGGGGTGTC 60
 TGAGGCCGCA CTGTGAGCTG GCCGGTCCAA GCCTGTGGCT GGAGCTGGGG TCTGTTTACC 120
 TAATAAAGTC CCACAGGTGC CTCATTAAT 149

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5 SEQ ID NO:4071
 SEQUENCE LENGTH:146
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04800
 SEQUENCE DESCRIPTION:
 10 GATCCCTTC AAGTCTCTCT GACCTTTCTT CTGCCCTCCA GCCTGGGTGA CAGAGCTAGA 60
 GTCTGTCTCA AATAATAATA ATAATACAAT AAATAAATAA ATAAATAAAT AAATAAATAA 120
 ATAAATAAAG TACGCTTTCC ATTAAA 146

15 SEQ ID NO:4072
 SEQUENCE LENGTH:146
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04801
 SEQUENCE DESCRIPTION:
 20 GATCTCATAG AGCCAGTTC TTAGAGTCAA CTAAAGAGTT GATAGGAATT TACTAGGTCC 60
 AGGGAGAAAA GGCAGTGGTT GGGGTTACTG GAAATTTTGC TCATTTTCTC TAATGACTGT 120
 ATGAATAAAA GTGAAC TTAC TTGAAA 146

25 SEQ ID NO:4073
 SEQUENCE LENGTH:146
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04802
 30 SEQUENCE DESCRIPTION:
 GATCTGAACT TACAGACAGT TGCCAAATTT CTCTAGATAA GAAATAAAG AATAGAGGGA 60
 ACCTAACTGG ATAACAAAA AAAAGGAGAG AGAAAAATGC CATTGCAGTT AAAGGTATT 120
 AAATAAAGCT TAGTGTCAAT GTCAAA 146

35 SEQ ID NO:4074
 SEQUENCE LENGTH:146
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 40 CLONE:HUMGS04803
 SEQUENCE DESCRIPTION:
 GATCAGGAGG GACCACAAGG ACAGGAGAAT TAGCAACGAG AGACTGGCTG GCACCAGTNT 60
 TGGGAAAACT TCAGAGTGAG CTCCATT CAT GGTCTATTAA AAGGCCTTN TTGTCATTCA 120
 45 GTGATATGTG NCTGGCCCCT GAGAAA 146

50 SEQ ID NO:4075
 SEQUENCE LENGTH:144
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS04804

SEQUENCE DESCRIPTION:

5 GATCAAAAAA TTATTTTAT TTATCCTAGC TTTACGTGCA TCTCACGGAA ACAGGATACA 60
 CGGTGTATAT ATTATNATGC AGTTCGTTGG AACTAGAATT TCAAAAAATT TTAATAAATA 120
 TGTTTAATCT GTTGCCTCTG GAAA 144

SEQ ID NO:4076

10 SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04805

SEQUENCE DESCRIPTION:

15 GATCACTGGG CCTACCTGCA CTGTGGGGCC AAGCCCTGTC TTTTCCCAA GCCCTCAAGC 60
 ACACGCATGA ATGTTTCATCC CGACTTGTA GGGGGCTTTT CACCCCTACA AGATGGCAAA 120
 AGATTACAT TGCTTTTTTT AAA 143

20 SEQ ID NO:4077

SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04806

SEQUENCE DESCRIPTION:

25 GATCTGTCAT NNTTTAGCAG TCAAGTGGGA TGGGCATTAT ATAAACAACG TTACAATGTA 60
 AGGAAAATCT NTAAGNGAT GGGGAGAGAA AAAGGCAGCT GGTATAATCG GTTACTGCTG 120
 CTTAGTTCTA CTAAATTTN NNN 143

30 SEQ ID NO:4078

SEQUENCE LENGTH:142

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04808

SEQUENCE DESCRIPTION:

35 GATCTGCCTC TCAGGAAAAA GTACTAACTT GTTCTTTTG TTCCTGGCTT TCATCAGTTT 60
 GTGAGATTTC TCTATTTTTT TTAAATATAA TTTTATTCT TTCAACAAAT ATAAATATAA 120
 40 AAACAACCTT GGNNCANTGA AA 142

SEQ ID NO:4079

SEQUENCE LENGTH:142

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04809

SEQUENCE DESCRIPTION:

50 GATCCTGGCT AACCTNGCC TATTTAGATT CCTTCCTCTC ACCTGGACCT TCCCATTTCA 60
 ATCATGCAGA TGGTTTCTTT TTGTAAAGAG TTCCGTTTGC CTTCAATTT TTAGAGAAAA 120
 TAAAGACTGC ATTCATCTCA AA 142

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5 SEQ ID NO:4080
SEQUENCE LENGTH:141
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04810
SEQUENCE DESCRIPTION:
GATCTTCTTC TCTCTTGTC ACCTATTAAT TGTTTACAAT ATTTGTTACA TCTTATGCAA 60
10 AATACTTGAN TGGGCCATGG TGCCTTTTTT CCTTGTNAGT ATTTAATTAA AAATGAATTG 120
TTTGTCAATT GCAATGTAA A 141

15 SEQ ID NO:4081
SEQUENCE LENGTH:140
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04811
SEQUENCE DESCRIPTION:
20 GATCCCGTTT TCCCATGAC AATGTTGTAG TGTCCCCAC CCCCACCCC CAGGCCTTGG 60
TGCCTCTTGT ATCCCTAGTG CTCCATAGTT TGGCATTGTC ACGGTTTCGA AGTCATTAAA 120
CTGGTTAGAC GTGTCTCAA 140

25 SEQ ID NO:4082
SEQUENCE LENGTH:138
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04812
30 SEQUENCE DESCRIPTION:
GATCTGTGCA GCAAACCACC ATGGCACAGG TTTATCTATG GAACAAACCT GCACATCCTG 60
CAGGTGTACC CCTGAAATTA AAGTAAAAAT TGGAAATAAA ACATTTAAAA AGAAAAAGAA 120
ACAAACAACA ACAACAA 138

35 SEQ ID NO:4083
SEQUENCE LENGTH:138
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
40 CLONE:HUMGS04813
SEQUENCE DESCRIPTION:
GATCTATCAA AGGAAAAGGA AACTGAGACC GAAAACTTAG GGTCTAAGTT GTTCTAAACC 60
CAGGGTTCTC AAATGTGTTG TACAAAAAGT TTCATGTAAT AAAATTAAGC AAATAAAACA 120
45 AATGAATAGA GGTCCAAA 138

50 SEQ ID NO:4084
SEQUENCE LENGTH:137
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS04814
SEQUENCE DESCRIPTION:
5 GATCACAATG TCATTTCCCTA ATACAAGGCA GGATATGTGG GAAGAATATG TACAATTATT 60
TGATTAAAAT TATTTCCAC TGACCTAAAC TTTCAGTGAT TTGTGGGAAA AATAAATAAA 120
TGTTCTACAC CAAGAAA 137

SEQ ID NO:4085
10 SEQUENCE LENGTH:137
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04815
SEQUENCE DESCRIPTION:
15 GATCCACTGC CTCAGCCTCC CAAAGTGCTG GGATTATAGA CATTATGAT GAATTCTTAT 60
TTTANNNTA ATATAAGCA AATACAATTA TTGTAGATA ACAATGCACA AAATAAAATT 120
CAAGGGTGAA AAATAAA 137

SEQ ID NO:4086
20 SEQUENCE LENGTH:136
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04816
25 SEQUENCE DESCRIPTION:
GATCCATGCC TGTAGTCAA GCTACTCAGG AGTCCGAGGC ACAAGAATTG CTTGAACCTG 60
GGAGGCAGAG GTCACAGTGA ACCATGTTCT GTCAGTGCAC TACATCCTGG GTGACAGAGC 120
GAGACTCCAT CTCAA 136

SEQ ID NO:4087
30 SEQUENCE LENGTH:136
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04817
35 SEQUENCE DESCRIPTION:
GATCTGGTCC CTGTAGCACA GAGGTCCGAA GAACCGCCTT CAGAAAGAGG AGGCATATTT 60
GGAAGTNATG GGAAAGACTT TNTGGACAAG GATGGAGAAC ACTTTGGAAA ATTGCATTGT 120
GCCAAGAGAC AACAAN 136

SEQ ID NO:4088
45 SEQUENCE LENGTH:135
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04818
SEQUENCE DESCRIPTION:
50 GATCTACAAC ACCTGCCAGT GACCCCTGCC CAAGGCCTAC CCCAGTTCCT AGCACTGCCC 60
CACATGCATG TCTGCCTATG CACTGAAGAG CTCTTGGCCC GGCAGGCCAC CAATAAACCA 120
GTGTGAACCC CCAAA 135

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EP 0 679 716 A1

5 SEQ ID NO:4089
 SEQUENCE LENGTH:133
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04819
 SEQUENCE DESCRIPTION:
 GATCTGCTGA CAGTGAGTAG TATTTTGTTT TAGGATGTTG TGACTTAGCA AAAATAATAC 60
 10 AGATGTCTTC CCCCTTTTG TAGCTTTGAC AATTGAATT AGATTTCAAA TAAATCTGA 120
 ACAGAAACT AAA 133

15 SEQ ID NO:4090
 SEQUENCE LENGTH:132
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04820
 SEQUENCE DESCRIPTION:
 20 GATCCTTACA TATGCCATCC TTCTGTGTCA TTTTGTGGCT GTTCTGTGTT TTTCTTCCTA 60
 GTTATTATT ATTGTTAATA ACTTACTTTT TCTTACATTC TGTGTAAAT AAAATACAAA 120
 GCAATCTTCA AA 132

25 SEQ ID NO:4091
 SEQUENCE LENGTH:132
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04821
 SEQUENCE DESCRIPTION:
 30 GATCAACAG AGGCATGCTA AGATATATTG GGGCTTGAAG CAAAGGGAAA ACTATTTGTT 60
 GCTATATGTT TGTAGGATT TTTTGCCAGT TTTAAAAATA CATGTATCAT AAAGTTTACT 120
 ATCTCAGCCA AA 132

35 SEQ ID NO:4092
 SEQUENCE LENGTH:132
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04822
 SEQUENCE DESCRIPTION:
 40 GATCAGTGGG GGAGGGCACC TCAGCAACCT CTGAGTGTGG ACAATAGCTG CTTTCTTCTC 60
 TATCCAAGAG CACCAGGCTG TGCTTGGNTC CTTGCTCTCA GAGTCTATAA ATAAAAGAAT 120
 45 ATAATGATTA AA 132

50 SEQ ID NO:4093
 SEQUENCE LENGTH:130
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS04823

SEQUENCE DESCRIPTION:

5 GATCGGGGGT GGGATGGGAT GGAGTGAGCC CCATCCAGTT AGTTGGACTA GTTTTAAATA 60
 AAGGTTTTTC GGTGTGTGTT TTTTGAACC ATACTGTTTA GTAAATAAA TACAATGAAT 120
 GTTGAGTAAA 130

SEQ ID NO:4094

10 SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04824

SEQUENCE DESCRIPTION:

15 GATCACAGAG GGAGGAGCTC TGAGAACAGT CTCCTTCAAC AGCTCGGCCA AGCAGAACTG 60
 CTGTACCTCT GACCACTTGT GTTAGGAAAA CTATCGGCTC CCTGTATAAT AAATCAAGCC 120
 AGGTCAAA 128

20 SEQ ID NO:4095

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04826

25 SEQUENCE DESCRIPTION:

GATCTTTGCC TNTAAGCTTG AATATTTGGC TTAAANTTTG TNCATATGAA TACTGTTAAA 60
 GGTATATTTN ACTACATTTT GAAAGGAAAA AGGTAGTCCT GCTAAAATTG ACATTTAGGG 120
 ATANN 126

30 SEQ ID NO:4096

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS04827

SEQUENCE DESCRIPTION:

GATCTGAAAT TCTGAGATAT CAATCTAGGA ATTTCAAAAG AAACAGATTA TAGAATTAA 60
 AACTTAACAC CNGTCTTGTA TTAAGAGAAG TCAACATTTT AAATAAAACC TTGTTCTTAC 120
 CAAA 124

45 SEQ ID NO:4097

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04828

SEQUENCE DESCRIPTION:

50 GATCTCAGAA CTGTGCCAAG CAGACACTGG GACAAAGGGA GAATATCTTG CTCCCCTCCT 60
 GAGTCAGCCT GGTGTGCCC TTTATTCCCC TTATGTGCAT ATGATTAAAG AGTTATTTT 120
 AAA 123

55

EP 0 679 716 A1

5 SEQ ID NO:4098
 SEQUENCE LENGTH:122
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04829
 SEQUENCE DESCRIPTION:
 GATCCTACAA ACAGACATT TCCACTCGTG TTTCCATAGT TGTAAAGTGT ATCAGATGTG 60
 10 TTGGGCATGT GAATCTCAA GTGCCTGTNT AATAAATAAA GTATCTTTAT TTCATTATA 120
 AA 122

15 SEQ ID NO:4099
 SEQUENCE LENGTH:121
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04830
 SEQUENCE DESCRIPTION:
 20 GATCTTCTCG CCTCAGCCTC CTGAGTAGCT GGAGCTACAG GTGTGAGCTA CCCAGCATGG 60
 CTCATTTGAG ATTTCTGAGT AGAGAAGTAA CATGATTAAA CTTGGGTATT GAGATTATAA 120
 A 121

25 SEQ ID NO:4100
 SEQUENCE LENGTH:121
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04831
 30 SEQUENCE DESCRIPTION:
 GATCAATCTC TCCCTCAGCT TTCCTTCCTA CTTTTCAGC TTTGCTGGCT TTTAACTGCT 60
 TCATTCTTCT GCTTCATTGG TATCCTTTTT TCTTTTGAAA TAAAAACATG AAATACTTAA 120
 A 121

35 SEQ ID NO:4101
 SEQUENCE LENGTH:121
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 40 CLONE:HUMGS04832
 SEQUENCE DESCRIPTION:
 GATCGACTGA GTCCAGAAAG TCAAGGCTGC AGAGAGCCAC ATTCACTGCA CTCCAGCATN 60
 GNTGNCAGAG GNAGACCCTG TCTCAAAAAA AAAAGAAAAA AGAAAAAGTG ACAATGNCAA 120
 45 A 121

50 SEQ ID NO:4102
 SEQUENCE LENGTH:119
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

55

CLONE:HUMGS04833

SEQUENCE DESCRIPTION:

5 GATCGGTAGG GGGCCTGCTC CTCGGACTCT GGTTACCTCT AAGGCTGGGA AAGGCCTGGT 60
TGCCCACTGC NTCNTCCCT GCCCTCCTT TNATGTCCAT AAAGTGGCGT GAAGTGAAA 119

SEQ ID NO:4103

SEQUENCE LENGTH:116

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04834

SEQUENCE DESCRIPTION:

15 GATCACCTT AAATCNGNGT TGGGAAAATA TCAATTAAT GGACTCTCTG GTTTGAATTC 60
TCAATATGTA TCTTAATATG AAATAGCTCA TTAAAACTTC ATGTGTAAT ATTAAA 116

SEQ ID NO:4104

SEQUENCE LENGTH:115

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04835

SEQUENCE DESCRIPTION:

25 GATCTGGGTG GTAGTACTG GGTGTGTTCT CTTGTGATA CTCTCTGAG ATGTACACTT 60
AGGATTTGCA ATCTTTTCTG TAAAATATTT CAATAAAAGA CATTATTTT TTAAT 115

SEQ ID NO:4105

SEQUENCE LENGTH:115

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04836

SEQUENCE DESCRIPTION:

35 GATCTTAGCT AAATCTCGGT AGATGTCATT ACAACCTNGA AAATAAATCA CCCTAAGTGA 60
CACAAATTGA AGCATGTACA AATTATACAT AATAAAGTGT TTTTAATAAT TGAAA 115

SEQ ID NO:4106

SEQUENCE LENGTH:115

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04837

SEQUENCE DESCRIPTION:

45 GATCCTNCAC CTCTTGGNAA TTAAAATTGT TGGTCACTGG GGAAAGCCTG AGTTTGCAAC 60
CAGTTGTAGG GTTCTGTTG TGTTTTTTTT TTTTITTAA AAAAAAANTN NAATN 115

SEQ ID NO:4107

SEQUENCE LENGTH:115

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04838

SEQUENCE DESCRIPTION:

5 GATCAGACAA GGAATGAAGC AATGNCTGTG GGCTGGGAAA CTGTACCTAC CTCTCTNCCC 60
 ACTGCAAATN NCTGGGATAG ACCAAAAGTG AATTTAATTA TGTNTTGGCT GAAGN 115

SEQ ID NO:4108

SEQUENCE LENGTH:115

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04839

SEQUENCE DESCRIPTION:

15 GATCCCAACT TGAAACAACA GCCAGTGCCT GTGGTAACTT AANNTNTTGT CAAATACTTT 60
 TATTGATTGG TTTATATGCC ATTNTTGTTA TAGAAGAATA TGCCTTTTAA AAANN 115

SEQ ID NO:4109

SEQUENCE LENGTH:112

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04840

SEQUENCE DESCRIPTION:

25 GATCAGCTCC GTGGGACTGA TATTGGTCCA CANCANAACA GGCAGTGCCT CCTTCCCTCT 60
 GGGGAATGCA AAAGAAANCA TGGATTAAGN GAGAAGGGAG ACTCTCAGCN TN 112

SEQ ID NO:4110

SEQUENCE LENGTH:111

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04841

SEQUENCE DESCRIPTION:

35 GATCGCCCAA TAAACATTCC CTTGGATGTA GTCTGAGGCC CCTTAACTCA TCTGTTATCC 60
 TGCTAGCTGT AGAAATGTAT CCGATAAAC ATTAAACACT GTAATCTTAA A 111

SEQ ID NO:4111

SEQUENCE LENGTH:111

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04842

SEQUENCE DESCRIPTION:

45 GATCGGCATA TGCATATCAA AAACAGCTCC CAGCTCTGTA AGGCATTAGA GTGAAAGCAN 60
 ANAATTTTTT AATGAAACAT TTATTTGCCT TCTTTTACTG CAGTGCTNNN N 111

SEQ ID NO:4112

SEQUENCE LENGTH:111

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04843

SEQUENCE DESCRIPTION:

5 GATCATACTN CTTTATCTAG AGNTTGTCT CAGCTTGCAG AGNTTGAGGA GAAGATAGAC 60
CAGTTACATC AAGAACAAGC TTTTCCTGAC TTTAATATGT TTNCNGAACT N 111

SEQ ID NO:4113

SEQUENCE LENGTH:110

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04844

SEQUENCE DESCRIPTION:

15 GATCACAGTG CAGATAATTA CCTCACACCT GTTAGGATGG CTTTCACCAA AAAGACAAAA 60
GATACGTGTA GGCAAGGATG TGGAGGAAAG AGAACTCTTG TATACGTAATA 110

SEQ ID NO:4114

SEQUENCE LENGTH:110

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04845

SEQUENCE DESCRIPTION:

25 GATCTTAGTC CGTTTTTTTT TTATATATTG TAACGTTAAA TGAAAAAAGA ACCCCCCTNN 60
TGTATTATAG TCATGCGGTC TTATGTATGA TAAACAGTTG AATAATTAAA 110

SEQ ID NO:4115

SEQUENCE LENGTH:110

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04846

SEQUENCE DESCRIPTION:

35 GATCTGGGAC TTCCAGAAAA CAGAACTNTN AAAANACAAG TTTCTTTTGT TTAAACCACC 60
CAATCTNAAG TATTTTTTNA TGGCAGTCCT GGGCAGACTA ATACAATATN 110

SEQ ID NO:4116

SEQUENCE LENGTH:109

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04847

SEQUENCE DESCRIPTION:

45 GATCTATCAT AAAAAGCAAT GTCTTCTCTG GAATGGGGCT TCAGTTTCCA CATTTACAAT 60
TAGTACATAT TACAATTAGT GATATGAATA AAGGCTGTTA TCCTACAAA 109

SEQ ID NO:4117

SEQUENCE LENGTH:109

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS04848

SEQUENCE DESCRIPTION:

5 GATCAAAACA GGTGACAGTG AAGTGGTTTC GGCCCTGCCA ATCTGATATC GTGTATGTAT 60
GAGAGTGGTC AGCATTTTAC CACTGGTAAC AAGTTCCTN CTGTNCAAA 109

SEQ ID NO:4118

SEQUENCE LENGTH:109

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04850

SEQUENCE DESCRIPTION:

15 GATCTATATA ATTTATGTAT CACCTTCATT GTAAATTTAG CAGGAAATGC ATCACAATTA 60
TNATTTTTTT TTTTGNACC AGTGAAACAA TAAAGATGCT ATTACCAAA 107

SEQ ID NO:4119

SEQUENCE LENGTH:107

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04851

SEQUENCE DESCRIPTION:

25 GATCATGTTG CTGGCTTTTA TAAACTCTAA GCGAAGGAGG AGCACTGCCT CAGCCTTTGC 60
ACATGGTAAT GAAGCACTGT TTTTAAATAA AAGAGAGAAA CACCAAA 107

SEQ ID NO:4120

SEQUENCE LENGTH:118

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04852

SEQUENCE DESCRIPTION:

35 GATCCGTGAG GCGGTGANTT GGA CTGGGACC CACTGCTGAT TCCCTGCACC TAGCACAGTG 60
CTTGCCACAA AGTGGGCTCT CAATAAATAT TATTTGTCCA AGGAAGGAAT GAATGAAA 118

SEQ ID NO:4121

SEQUENCE LENGTH:108

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04853

SEQUENCE DESCRIPTION:

45 GATCGTCTGA GCGCCNCGGG CACTGGGTGG GGCAGAGCAC GAGTTATTTA AAACAGTTAC 60
ACTGCAGGGT TTCGCCAAT AAAGGTGGAC TGACATTCCC TCTTCAAA 108

SEQ ID NO:4122

SEQUENCE LENGTH:107

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

EP 0 679 716 A1

CLONE:HUMGS04854

SEQUENCE DESCRIPTION:

5 GATCTTTTAT ACTCAGNTTN AAACACTTTA CTTGGGTTTA CCAAGCCTCA ACTGGCATA 60
CATAAACANG CCACANGGAC CGTTCCTGCA GGCCCAACCC ACAGGGN 107

SEQ ID NO:4123

SEQUENCE LENGTH:107

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04855

SEQUENCE DESCRIPTION:

15 GATCCGGAAC CCACTTTTT ATTCACTCCC CATCGTCGTT TGGCCNTTCC ATCNNTCTTT 60
NTCTTCCCT CTGCCATCCG TGACACTGAT AGTTNGTCAT ATAAATN 106

SEQ ID NO:4124

SEQUENCE LENGTH:106

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04856

SEQUENCE DESCRIPTION:

25 GATCTCCAAT CTCCTCGGT GCAACACCTG AATAAAGCCT TCTTCCCTCA CAATACTTGN 60
NNNCTCAGTG ATTGGCTTAC TGTGCAGTGA GCAACCTAGA CCAANN 106

SEQ ID NO:4125

SEQUENCE LENGTH:102

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04859

SEQUENCE DESCRIPTION:

35 GATCAAAATC ACGTTTGTAG TATCATATCA AAAATTCTAA CCTGTTTACA TTGTTTNNAT 60
GTTTCATGTT CTATGTTATT AAAATATTAT TTTGTACTTA AA 102

SEQ ID NO:4126

SEQUENCE LENGTH:101

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04860

SEQUENCE DESCRIPTION:

45 GATCTACGGC AATGTGAATC ATTCAGATGT TTACAATAAA AAACACCACA TGAGTAAATG 60
AATTCACTAA TGTTAATGTT AAACCTTCATG GAAAGNNNNN N 101

SEQ ID NO:4127

SEQUENCE LENGTH:100

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

EP 0 679 716 A1

CLONE:HUMGS04861

SEQUENCE DESCRIPTION:

5 GATCCCCCT CAGGACAAAT CTA¹CTCCAGC CACGATGAGA AGTGGGTGAG CCAGGGTCTG 60
AGTTTCACAT TTGAACCAA TAAATGCTG TCAAGAGAAA 100

SEQ ID NO:4128

SEQUENCE LENGTH:97

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04862

SEQUENCE DESCRIPTION:

15 GATCATGCCA TTGCACTGCA CCTGGGCAAC AAGAGTGAAA CTC¹CGTCTTA AAAATATAA 60
GAAATAAAAA AATAAAACC TGTCCCAGA CTGAAA 97

SEQ ID NO:4129

SEQUENCE LENGTH:97

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04863

SEQUENCE DESCRIPTION:

25 GATCCTGAGC TAGGAGAGTA CATTTTGAG ACCTTTGGT TCCATATTAA GAAATTCAGA 60
TTTTNATGTA CAATAAGAA GTTCTGGAAT TCTCAA 97

SEQ ID NO:4130

SEQUENCE LENGTH:96

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04864

SEQUENCE DESCRIPTION:

35 GATCTCTNTN CAGCCCTAAA GCTCCTTGGT TCTGTAATTC CACCAATAGC CCATTTCAAA 60
AATAATTCTA CAGTAATCAG TGGGACTCCT GTTTN 96

SEQ ID NO:4131

SEQUENCE LENGTH:95

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04865

SEQUENCE DESCRIPTION:

45 GATCACACCA CTGCACTCAA GCCTTGGCAT CAGAGTGAGA CTCTGTCTCA GTAAAAAAA 60
AATAAATAA TAAAAATGTT TAATTAACCA TGAAA 95

SEQ ID NO:4132

SEQUENCE LENGTH:95

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04866

SEQUENCE DESCRIPTION:

5 GATCGTAGGG CATCAGAAAA ACAAAAAGAA ATAGAGAGAG TAAAAGAGAA GCAACAGAAA 60
GAACTCAATA AACAAAAACA GATTGAAAAG GTAAA 95

SEQ ID NO:4133

SEQUENCE LENGTH:98

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04867

SEQUENCE DESCRIPTION:

15 GATCTTTATT GTTCCTCACC CCATTTTCCT CCTTGTGTAT GTACTTCCCC CACCCCCTT 60
TTTTAAGTA AAATGTAAAT TCAATCTGCT CTAAGAAA 98

SEQ ID NO:4134

SEQUENCE LENGTH:94

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04868

SEQUENCE DESCRIPTION:

25 GATCTAATAA GTATTGGAAT GCTTCCTATT TGCTGATAGA AGTACCAAAT AGTATTATTG 60
AAGTCTAACA AAGACTTTTT GTTGAGAACA CAAA 94

SEQ ID NO:4135

SEQUENCE LENGTH:94

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04869

SEQUENCE DESCRIPTION:

35 GATCGAGGTA AGAGGGACTT TNTTAAAGGC CTAGTCTATG GGATGGGGCG GCGGAGGGAA 60
TTTTTTGAGA AATAAAATGA AGCTGCAGTG TAAA 94

SEQ ID NO:4136

SEQUENCE LENGTH:92

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04870

SEQUENCE DESCRIPTION:

45 GATCACACCG CAGACATTTA GATTTTATA CCCAAGGCAC TTAAAAAAA TGTTTATAA 60
ATAGAGAATA AATTGAATTC TTGTTCCATA AA 92

SEQ ID NO:4137

SEQUENCE LENGTH:91

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04872

SEQUENCE DESCRIPTION:

GATCTTTACT GATGCACTCA TGACAAGTAC CCAATGTATT TTAGCTATTT TAGTAGTATT 60

TGTTCAATAA ATACGCAAGC TGTAAGGTAA A 91

SEQ ID NO:4138

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04873

SEQUENCE DESCRIPTION:

GATCTGCTTT TCTGCATGTT TGTCTGTGTG TCTGCGTTGT GTGTGATTTT CATGGAAAAA 60

TAAAATGCAA ATGCACTCAT CACAACTAA A 91

SEQ ID NO:4139

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04874

SEQUENCE DESCRIPTION:

GATCAAAAAA AATAAATCAC AATGGTATTT AGAAAATATT TTCTACTGAA GGCTAACAAA 60

ACACTACATA TTAAATTAT AAAATGCAAA 90

SEQ ID NO:4140

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04875

SEQUENCE DESCRIPTION:

GATCTTTTGA TGTGCACTAA TGCCATTATT GGTAATGCCG GTTATTGGTG AATACAGCAT 60

AGTTAAATAA ACTGTTACAG TAAATCTAAA 90

SEQ ID NO:4141

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04877

SEQUENCE DESCRIPTION:

GATCTAGGGC AACTTGTCC AACTGTTGGC CCATGGAACA GCTTTGAATG CAGCCCAACA 60

CAAACTCTATA AATTNCTTA AACATTAAT 89

SEQ ID NO:4142

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS04878
SEQUENCE DESCRIPTION:
5 GATCAGTCTC ATGGGCCATC TCTTCCTCAG ATGTAAATAA TATCTGGTTA AGTGTATAT 60
GGAATAAAGT GGACATTTTA AAACATAA 88

SEQ ID NO:4143
SEQUENCE LENGTH:88
10 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04879
SEQUENCE DESCRIPTION:
15 GATCTCAGTG ATGTTTGAAC CTTCTGTGTA ACTTTTATT AAGCTTTGT ATCTCTCGAC 60
TGATTAATAA AGAAGAGAAA CACGTAAA 88

SEQ ID NO:4144
SEQUENCE LENGTH:87
20 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04881
SEQUENCE DESCRIPTION:
25 GATCTTTATT GGTGACCTTT TGTAAGACAT TAGTTTGAGG TACTACCTAT GTACTTGAAA 60
ATAATAAAGT GGCATTCTT TATGAAA 87

SEQ ID NO:4145
SEQUENCE LENGTH:86
30 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04882
SEQUENCE DESCRIPTION:
35 GATCCACTTT GTACTCCTAC CAGTAGGAAC GGTCTTCTAA CAGAGAAGAT TATAGCAAAA 60
AATAAAATCT CTTCTTAATT CCCAAA 86

SEQ ID NO:4146
SEQUENCE LENGTH:86
40 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04883
SEQUENCE DESCRIPTION:
45 GATCCAAAGT CCAGTCTCT CACTGAAGCC TTATCTTTCG GAAAGCTTCC AACAGTAACT 60
CAGGAATTNA GCTTACTTGC TTAAAA 86

SEQ ID NO:4147
SEQUENCE LENGTH:85
50 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

55

EP 0 679 716 A1

CLONE:HUMGS04884
 SEQUENCE DESCRIPTION:
 5 GATCTAAAGA AGAAGGTTCA GTTTTCAAAC AGAATTTAGA GAAAATATAA AGAAATAATT 60
 TCTTGTCTCA AAAGGCCAAA GTAAA 85

SEQ ID NO:4148
 SEQUENCE LENGTH:84
 10 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04885
 SEQUENCE DESCRIPTION:
 15 GATCAGCTG TGCCTAAAGC CTGCCCTACC TCCGGACTTT AAAGTTTGT GAGCCAATAA 60
 AGTCCCTTTC TTGTTAAGA TAAA 84

SEQ ID NO:4149
 SEQUENCE LENGTH:84
 20 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04886
 SEQUENCE DESCRIPTION:
 25 GATCTGAAAA GGCATTAATT TATGTACTAA TTCTATAAAC ATGTATTAAT AATTGCAGTA 60
 TTATTAAATA CAGATGGACT CAAA 84

SEQ ID NO:4150
 SEQUENCE LENGTH:83
 30 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04887
 SEQUENCE DESCRIPTION:
 35 GATCAGGCC CCCAACTCTC CAGAACAGGC TACAAACATG CAAATTAGAA TTCTTTTAAT 60
 ATAAAAAAAA GTACTAAAAT AAA 83

SEQ ID NO:4151
 SEQUENCE LENGTH:83
 40 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04888
 SEQUENCE DESCRIPTION:
 45 GATCAGAGGG NAGTACAGAA NCCCTGAACT AAAGCNTTAA GTACATACCA TACAGCAAAT 60
 AAATGGTAGC AAAACATTCT AAA 83

SEQ ID NO:4152
 SEQUENCE LENGTH:83
 50 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS04889

SEQUENCE DESCRIPTION:

5 GATCTAAAT TTGTAATATT TTTGTCATGA ACTGTACTAC TCCTAATTAT TGAATGTAA 60
TAAAAATAGT TACAGTNACT AAA 83

SEQ ID NO:4153

SEQUENCE LENGTH:81

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04890

SEQUENCE DESCRIPTION:

15 GATCACATGG TTCACTACCA AATNACCCTC AAATAAGCCA GATGAAAATT TGAAGAAAAA 60
GGTCACCCAG TTCTCTGGAA A 81

SEQ ID NO:4154

SEQUENCE LENGTH:81

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04891

SEQUENCE DESCRIPTION:

25 GATCAGAGCG TAGTTTTAAN TGTATTTTGT ATACACTTGT GAAATATTTT ATAGAAATAA 60
AAATTTTAC TTAGGAGCAA A 81

SEQ ID NO:4155

SEQUENCE LENGTH:81

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04892

SEQUENCE DESCRIPTION:

35 GATCCTTCCT CCCACCCTAN GCCTTCCTTT CCTCTTTCCT CCTCACTCTC CCCGTCATGC 60
TCCCTCTGCC CNGNCCTCAA A 81

SEQ ID NO:4156

SEQUENCE LENGTH:80

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04893

SEQUENCE DESCRIPTION:

45 GATCCAAANT AGTAACNTT TNTNATGAAC TGTACTACTC CTAATTATTG TAATGTAATA 60
AAAAATAGTTA CAGTGACAAA 80

SEQ ID NO:4157

SEQUENCE LENGTH:79

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04894

SEQUENCE DESCRIPTION:

GATCATTAGT CAATTGCTTT AATTATAAGC CCTGTTTTTT TTAAATCTA AAAACTAATA 60

5

AACATCTATA AGAATTAAA

79

SEQ ID NO:4158

SEQUENCE LENGTH:79

10

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04895

SEQUENCE DESCRIPTION:

15

GATCNACTGT CAAAAGAAG GGTCAAGTA AAATAAATG AGAGCAATTA TATATATAAA 60

TATATATCAT ACACAGAAA

79

SEQ ID NO:4159

SEQUENCE LENGTH:76

20

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04897

SEQUENCE DESCRIPTION:

25

GATCACCTGA ATTCTGGAGG TTGAGGCTGC ACCACTACAT TCCAGCCTGG GAGATAGAGT 60

GAGAGCCTGT CTAAA

76

SEQ ID NO:4160

SEQUENCE LENGTH:76

30

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04898

SEQUENCE DESCRIPTION:

35

GATCCCAAAT NTTCCACAA GCTTTATTCC AAAAATAATT TTATTTAATA GGTATTAAAT 60

AATGTATAGA AGGAAA

76

SEQ ID NO:4161

SEQUENCE LENGTH:74

40

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04900

SEQUENCE DESCRIPTION:

45

GATCTTCCTG TTCAGTCCC CAAGGTGTTG GGATTATGGG CATGAACTGC TGCACCCAGC 60

CCTTTATACT CAAA

74

SEQ ID NO:4162

SEQUENCE LENGTH:73

50

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04902

SEQUENCE DESCRIPTION:

5 GATCACTGGT ATGTAGATAA TAAATGTGA AAATAAAAT TAAAAATAA AACAAAAATT 60
ATGTGATAAT AAA 73

SEQ ID NO:4163

SEQUENCE LENGTH:73

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04903

SEQUENCE DESCRIPTION:

15 GATCGTGCAA CTGCACTCCG GCTTGGGCTA CAGAGTGAGA CTCCATCAGA AAGAAAAGAA 60
GAGAGAGATG AAA 73

SEQ ID NO:4164

SEQUENCE LENGTH:74

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04904

SEQUENCE DESCRIPTION:

25 GATCAGCATG TAAAGTGTCT GGCCTGTAGT AGGCTCTTAA TAAACACTGG CTGAATATGA 60
ATTGGAATGA TAAA 74

SEQ ID NO:4165

SEQUENCE LENGTH:72

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04905

SEQUENCE DESCRIPTION:

35 GATCTCAACT CGTGGCACTA ACTTGAAAAA GGGTTGATTT AAAATAAAAG GGAAGACTAT 60
TTTACAAGCA AA 72

SEQ ID NO:4166

SEQUENCE LENGTH:70

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04907

SEQUENCE DESCRIPTION:

45 GATCCTAAAC AGATGCATTG TTGCTTTTCT GTGCTGTCTC TGCAGATTAA AACATAATGA 60
TTACTACTAA 70

SEQ ID NO:4167

SEQUENCE LENGTH:135

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04908

SEQUENCE DESCRIPTION:

5 GATCTATTAT GCCTTTTAC AAAAAAATG GCTGTAAATN ATTGTAAATA TTAAAGGAAC 60
TTTCCTTACT TCCTTCCCTT TCTCAGGCTT TTTTGACTG TTCCTTTCCC TACCAACTCA 120
GGCCTTCTTA TTAAA 135

SEQ ID NO:4168

10

SEQUENCE LENGTH:69

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04909

15

SEQUENCE DESCRIPTION:

GATCTCCCTG GAGGTTTCAT AGCAAGGTTT GACTTGATGA ATTAATTAAT AAAGCTAAAT 60
ATCCTGAAA 69

SEQ ID NO:4169

20

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04910

25

SEQUENCE DESCRIPTION:

GATCACCCAC GGGGAGGAGA AGGAGGAGTG AGACCCAGCC GGGTCAATAA ACCTGGACGC 60
TTGGAAA 67

SEQ ID NO:4170

30

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04912

35

SEQUENCE DESCRIPTION:

GATCTGCTTA TAAATAAACT TAACAAATAC ACTATGGAGA TAAAAACAA AATACCACCC 60
ACAAA 65

SEQ ID NO:4171

40

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04913

45

SEQUENCE DESCRIPTION:

GATCTGTTTC TCTAGAAAAA AAGTCCATCT CTGGCTTTAA TAAATTATG CATCAGAAAT 60
CAAA 64

SEQ ID NO:4172

50

SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

55

EP 0 679 716 A1

TOPOLOGY:linear
 CLONE:HUMGS04914
 SEQUENCE DESCRIPTION:
 5 GATCTCATGC TNAGCAGAGC AAAAATTGTA AAATATTTTG ATTAAAAATC TAGGGACCTT 60
 TATGTCCTAT TTGAAA 76

SEQ ID NO:4173
 10 SEQUENCE LENGTH:63
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04915
 SEQUENCE DESCRIPTION:
 15 GATCAGGAAG TGGCTTTGTG TCTTCCCACA TGTATGTATA AATAAAGTGT TCTTTTAAGC 60
 AAA 63

SEQ ID NO:4174
 20 SEQUENCE LENGTH:63
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04916
 SEQUENCE DESCRIPTION:
 25 GATCCTCATT TTTTCCATT GTAAAATTGG GCTAATAAAA GATGCTACCT ACTGACTATT 60
 AAA 63

SEQ ID NO:4175
 30 SEQUENCE LENGTH:62
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04917
 SEQUENCE DESCRIPTION:
 35 GATCACGCTA CTGCACTCCA GCACTCCAGC GCAGGCAACA GAGGGAGACT CTTTGTCTCA 60
 AA 62

SEQ ID NO:4176
 40 SEQUENCE LENGTH:62
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04918
 SEQUENCE DESCRIPTION:
 45 GATCCTGAAT TTCCAGCCA ACAGAACCAA GTGCTAATA AAACCTTTT TAATAAGTTA 60
 AA 62

SEQ ID NO:4177
 50 SEQUENCE LENGTH:62
 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04919

SEQUENCE DESCRIPTION:

5 GATCAAACT CTGTTCTCAA AAATAAATAA AAAATAAAAA ACAAACAAC AACACAACA 60
AA 62

SEQ ID NO:4178

10 SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04920

SEQUENCE DESCRIPTION:

15 GATCACGCCA CTGCATTCCA GCCTGGGAGA CAGAGTGAGA AATAAATAAC TGTAATGTAA 60
A 61

SEQ ID NO:4179

20 SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04921

SEQUENCE DESCRIPTION:

25 GATCCAAGCA AACTACTTTA AGCAATATT TGTAATAA AAAACGGAGG ACCGCTCAAA 60

SEQ ID NO:4180

SEQUENCE LENGTH:60

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04922

SEQUENCE DESCRIPTION:

35 GATCTAACAG TTCTCCAATA AAATAGTTCT CATTCCAGAG AGCAGATGAA TATATTAAA 60

SEQ ID NO:4181

SEQUENCE LENGTH:59

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04923

SEQUENCE DESCRIPTION:

45 GATCTATGAC TGTACTACAC TCCAGCCTGG TCAACAAAGC AAGACCATAT CTCTTTAAA 59

SEQ ID NO:4182

SEQUENCE LENGTH:59

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS04924

SEQUENCE DESCRIPTION:

55

GATCCAAGTA TTTNATCTGT GTTGTCTCTC TAAACCCAAA TAAATGTGTA AATGTGAAA 59

SEQ ID NO:4183

SEQUENCE LENGTH:59

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04925

SEQUENCE DESCRIPTION:

GATCCAATAC ACACATANCT TACAACTATC ACAAATTCCT ATTAAATATT AAAAGTAAA 59

SEQ ID NO:4184

SEQUENCE LENGTH:59

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04926

SEQUENCE DESCRIPTION:

GATCTCAAAAN NGAAATCTTA TACCAGTGAC AACTGTATTA GAATATATCT GTTCTTAAA 59

SEQ ID NO:4185

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04927

SEQUENCE DESCRIPTION:

GATCTCATAT TAATATTTTA ATATTTCTTT TCAAAATAAA ACAGAAAAGC AAGTAAA 57

SEQ ID NO:4186

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04928

SEQUENCE DESCRIPTION:

GATCTGTGTG TTCTTTCAAA GAGAAGTTAT GTCTAATTAA AATGTGTAAC GGACAAA 57

SEQ ID NO:4187

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04929

SEQUENCE DESCRIPTION:

GATCCGNGAG AGAACGACCA CAATTTAAAC ACATCAATAA ATACTTTAAC TTCCAAA 57

SEQ ID NO:4188

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear
 CLONE:HUMGS04930
 SEQUENCE DESCRIPTION:
 5 GATCAAGAAG GACTACCTGT CATGTGAGAC CATCACTAAG AAACCATTG CTGAAA 56

SEQ ID NO:4189
 SEQUENCE LENGTH:52
 10 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04940
 SEQUENCE DESCRIPTION:
 15 GATCCCACTT CGGTCTGTAA ATTCCCTCAA TAAATCACCC AATATTGACA AA 52

SEQ ID NO:4190
 SEQUENCE LENGTH:51
 SEQUENCE TYPE:nucleic acid
 20 TOPOLOGY:linear
 CLONE:HUMGS04945
 SEQUENCE DESCRIPTION:
 GATCCCCAAA GCTTAAAATA TCGACTATTT AGAGTGAGAC TCCATCACAA A 51

25 SEQ ID NO:4191
 SEQUENCE LENGTH:51
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 30 CLONE:HUMGS04947
 SEQUENCE DESCRIPTION:
 GATCAGCCAN GCATTCCAGC CTGGTGACAG AGCGAGACTC TGTCTCNGAA A 51

35 SEQ ID NO:4192
 SEQUENCE LENGTH:56
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 40 CLONE:HUMGS04948
 SEQUENCE DESCRIPTION:
 GATCTTGTTT GTTGAGGGAG ATGGGACTAT AATAAAATTG AATGCTGAAG TTGAAA 56

45 SEQ ID NO:4193
 SEQUENCE LENGTH:50
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04950
 50 SEQUENCE DESCRIPTION:
 GATCGCGCCA CTGCGTTACA GCCTGGCGAT AATGCAGGAC TCAGTCCAAA 50

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SEQ ID NO:4194

SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04965

SEQUENCE DESCRIPTION:

GATCTGTCTT GTAAACCACA TTCTTGACAA CTATTGCTT TTGAGTAGTT TGTATTTTAA 60
TATGTGACTT TNGTCTTGAA AAGTAGTAAA GCCATAGACT TGTGCAAAAC AAA 113

SEQ ID NO:4195

SEQUENCE LENGTH:192

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04985

SEQUENCE DESCRIPTION:

GATCATTATG CAATAAAGCT GCTAAAGTNA CATTGTGGT TGATACTCAA GCCTTGACA 60
AGCACATATN ATGTAGACAT TTTNAAATGT NAAGCTTTAA CAGGAATAGG ATAGCTGTTT 120
CAAACCTTGT GCAATTGTAA ATAAATTGTT TAGCTGTGTT TCTTTCATT TNAATAAAAA 180
ATTAAAAAGA AA 192

SEQ ID NO:4196

SEQUENCE LENGTH:50

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04986

SEQUENCE DESCRIPTION:

GATCAATTG TAATTGCTTA CATTTTACA ATAAATAATC TGTACGTAA 50

SEQ ID NO:4197

SEQUENCE LENGTH:282

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04987

SEQUENCE DESCRIPTION:

GATCTTTCTT TGGCAACCAC TTTTACTGT CGCCATAGTT CTTCCTTTTC TAGAATGTCA 60
TATTGGAATC ATATAGTATG TAGCCTTTTC AGACTGGCTT CTTTCACTTA ATAATATGCA 120
ATTAAGGTTT CTCCATGTCA TTTTCATGGCT TAATAGTGCA TTTATTTTGA GCACTGAATA 180
ATACTCCATT GTCTAGATGA ATAGTTTATC CATTACCTA TTGAAAGACT TCTTGGTGGT 240
TTCCAAGTTT TGGCAATTAT GAATAAAGCT GTTGTAACA AA 282

SEQ ID NO:4198

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04988

SEQUENCE DESCRIPTION:

GATCTTTTCA GTCAAAAATC TAAGATGATT TATTTTGTAT CACTTTGTTA AAAGCTGAAT 60
 ATTGTAACT ACAGTTAATA TTAACACTGT ATTTATACTT TCTCAAACTA CATCCGCCCC 120
 ACCACTTCTG GTTGCCTCTG TTGACTATTA ATCCAGATGT AAACAACCAG ATGTTTTTTT 180
 CTAAC TTGTA CAAACTGACG TGTGTCAACT ATCATGGAAG GAAAAAATG TACAGATTAA 240
 AATTATTCAG NGTTAAA 257

SEQ ID NO:4199

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04989

SEQUENCE DESCRIPTION:

GATCCAGGNG TTGACTATAA CCAGATTTAC TCTTTGCTTA CTAGGNTTTC CATNNTCACC 60
 ATTGGATGAA CCNCTGGTTT AGCCACAGTT GTGAAAATAA ATGGAAGTTG GTTGATTGTC 120
 TAGAAAGTGA AA 132

SEQ ID NO:4200

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04990

SEQUENCE DESCRIPTION:

GATCCGCATC CAAGCTTAAC CAAGGCTCCA ATAAACGTGC TAGGAAGCAA A 51

SEQ ID NO:4201

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04991

SEQUENCE DESCRIPTION:

GATCAGTCGC TGAATCATTGATGATGAACCAG GAGCCTGCAT GCTACAGCCC ACCTGCCAAA 60
 TCTTGCCCCC ACCTGCTTTT TAAATAAAG TTTTATTGGA ACATGAAA 108

SEQ ID NO:4202

SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04992

SEQUENCE DESCRIPTION:

GATCTTTGCT CTGTTTCCAG TGGGGTTTGA AGCAGAGTTC AGGGAACCCT GCCCAAGGTC 60
 CTCCTGTTCA GACATTCCCTA TGTGAATAA AGTATGTTTG ACTTCCCCGG AAA 113

SEQ ID NO:4203

SEQUENCE LENGTH:471

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04993

SEQUENCE DESCRIPTION:

GATCCACCT CAAATTAGCT TGATTGCAAA ACAGATATTG GAACATGGAG CTGAGAAGAA 60
 GATGGTCTGG GCTTCAGGCA CAGCTGGGTC CAGGGACTCA GACNNNTTG TCTCCATCTA 120
 TCTNCTGTGT TTTNCTGTAG GAGGTGGCCT CACTTTCCCC TAGTTCAAAA GGGCTTACTC 180
 CATATGATGG GGGGAAGGAA GACAGGNCCA TGAACAGCCC TAGACTTCCA TCAGCCCACC 240
 TGGGAAGCCC TCACAGGAAA ATNAGTCTCA TTCCTAGTAC ATGAAATCTC AGGGGAGGGA 300
 ACTCCGATTG GGCCACCTTC AGTNATGTGC CCNGTCCCTN GGGGCCAAAT CCNCTTTTGG 360
 GTTGGTGGGG GCGGGTTTCA AGTGATTGGG NAAATNGCCA ACCNAAAGTT CANGTTNGAA 420
 GTTGAGNAA NGGGGAANTT TTNCCCAAAA AGAAANGGNA AGGTTTGNTA N 471

SEQ ID NO:4204

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04994

SEQUENCE DESCRIPTION:

GATCAGGAAT GGGTGATTGG AGATTATTAG ATTCTAGGTT AACTTCTACC ACTTTACCCT 60
 AATACATAAA ACTTTTTCCT AAATAAATGA TGGAAGGAAT AATACTTGGT TACCTGGCAT 120
 TATTTTTCAG TAAGAAAAAA GCTTTACTAA CCACTACATT TATGGAAATT TGTAGGGGTA 180
 AGTATTTTAT AGGTCATAAA AAACACCATA ATATAACGAA TCTCATTNC TTTAAATGTG 240
 AATTAATCC TAACAGTCAT CTTTATAAAA TGACCATAGG CTAAANTCTT ACGTGTAAGT 300
 NCTACTACAN TAAATANTTT CTGGAACCT TTTATAAA 338

SEQ ID NO:4205

SEQUENCE LENGTH:237

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04997

SEQUENCE DESCRIPTION:

GATCACCTTC CAGACCACAG CAGATGTGGG ACACACAGCC TCCTGACTCC AGGAAGAGCC 60
 AGANCTGTGC AGGGAGGAAG GGGTGAGAGG GGGGCCCCCA CACCTAGACT CAGTAAGGAA 120
 GTCGGGTTNG ACCTTAACAT CTNCATTGGA CAACTCCACC CNTNCCTTGG CCTTGCCCTT 180
 GCCCGNNTAC ACTCCTACGT NTCCANGGCG TTNGGCCGTG ACTTAGGNAG AGGAGTN 237

SEQ ID NO:4206

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04998

SEQUENCE DESCRIPTION:

GATCATCCGC AGNCTCATGT TAAAAGGATT TTAGCTCACT AAAAGTGTA TAATGGAAAT 60
 GTGGAATA TCGTAGGTAA AAGAACTAC CTCATGCTCT GAAGGTTTGG TAGAAGCACA 120

ATTAACATC TAAATGGCT TTGTTACACC AGAGCCATCT GGTGTGANGA ACTCTATATT 180
 TGTATGTTGA GAGGGCATGG ANTAATTGTA TTTNGCTGGC AGTAGACACA TTCTTTATTA 240
 TTTGCAGATT CCTCATCAA TCTGTANTTA TGCACAGTTT CTGTTATCAT TAAAACAAAG 300
 GAATCCNGTT AAA 313

SEQ ID NO:4207

SEQUENCE LENGTH:271

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04999

SEQUENCE DESCRIPTION:

GATCACATCT NTNTGAAGCC AAAGCCCCGT GGTGCCCCAT GAGAAAGTGC CTTTTTCATT 60
 TTCACCCAAA TGAAGTGTGA ACGTGATGTT TTCGGATGCA AACTCAGCTC AGGNATTCAT 120
 TTTGTNTCTT AGTTTTATAT GCATCCTTAT TTNTAATACA CCTGCTTCAC GTCCCTATGT 180
 TNGGAAGTCC ATATTTGTNT GCTTTTNTTG CAGCATCATT GCCTNTACAA TACTGNCCGG 240
 TGGACAAAANT GACAAATNGAT ATGTNTTGCT N 271

SEQ ID NO:4208

SEQUENCE LENGTH:345

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05001

SEQUENCE DESCRIPTION:

GATCGCACTG TGGGCCGGGG CCCTGGAGGG CTGCTCTGTG TTAATAAGAT TGTAAGGTTT 60
 GCCCTCCTCA CCTGTTGCCG GCATGCGGGT AGTATTAGCC ACCCCCCTCC ATCTGTTCCC 120
 AGCACCGGAG AAGGGGGTGC TCAGGTGGAG GTGTGGGGTA TGCACCTGAG CTCCTGCTTC 180
 GCGCCTGCTG CTCTGCCCA ACGCGACCGC TGCCCGGCTG CCCAGAGGCT GGATGCCTGC 240
 CGGTCCCGGA GCAAGCCTGG GAACTCAGGA AAATTCACAG GACTTGGGAG ATTCTAAATC 300
 TTAAGTGCAA TTATTTTAA TAAAAGGGGT ATTTGGAATC AGAAA 345

SEQ ID NO:4209

SEQUENCE LENGTH:406

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05002

SEQUENCE DESCRIPTION:

GATCTTACTT TCATAATTCT TTGATTCTAG CTTGCAGAGT CAAGACGNAA AGNTAACTCA 60
 TGGGATGGAC AAAGTGAAG ATGTAAAATA AGTAAGGCTT TNTGGGCCAA AAAGCCTCTT 120
 CTTACAGAAA ATCAAATTTT AAAAGAACAT TGACCTCAAA ACAATAAAAC TGTCTGGTT 180
 ATGCAATAGA AATAGCTATA TAAATGGAAT CATATCCTTA ATGAACACCT CCTGTGGCTA 240
 CCCAACTTTT CACACATCTT ACTGATTATA GGCCTTGCTG TGAATGCTTT CTGCTCTAT 300
 CTGAAGTATT CCCACCAGAG TTGTTTCCAA CNTTATTTC TATATTATGA AAAATGANGT 360
 TTTTTTAAACA TTGTAACAAA GTATTTGNAA GGAATGTAT ACTGTN 406

SEQ ID NO:4210

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05003

SEQUENCE DESCRIPTION:

GATCTAAAAA AANNTAAATT ACATTAGTAA CACAACATAA GAAAAAGACA GGGACAAAAA 60
CAAAAAAAA TAAA 74

SEQ ID NO:4211

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05004

SEQUENCE DESCRIPTION:

GATCCTATGT GGAAGGGCTG TTTTAAAGA AAAAATTTT GGTAACAGT ATTGTGTAAA 60
ATTGCTTTT GTATACCAAT ATATGCATGT TTTGTGCATG AGTAGTACTT GTGTTGATAC 120
TCCTGTTGAT GTTAAATTAC TATAAATAT AANCAGTATG TGTTTTTATA TATCATTGTG 180
TAAATTTAAT ATAACATATG CNGTAATAAN CCATTNGTNT TACGGGCAAA 230

SEQ ID NO:4212

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05005

SEQUENCE DESCRIPTION:

GATCTCAATC AAGTTAGCAT GCTTNGTCCA GCTGCCCTAT NACCTGCCAG CTCATCACAA 60
AGAACCACGG CCACCCAGGT CATGGCAAAC TCTGCTGGAC TTAATTCAT CAATGTAGTG 120
GGCTCTNTTT GTGGGGCCCA GGCTTTGATG AGTNGGNNNN N 161

SEQ ID NO:4213

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05006

SEQUENCE DESCRIPTION:

GATCGAGACC ATCCTGGCCA ACATGGTGAA ACCCGTCTC TACTAAAGAT AAAAAATTA 60
GCTGGACATG GTGGCGGGCG CCTGTNTTCC CAGCTACTGG GGAGGCTGAG GCAGGAGAAT 120
GGCTTNGAGG CAGTAGAACT GCTTGAACCC TGGAGGCGGA GGTACAGTT ATCCGAGGTT 180
GTGTCATTGC ACTCCAGCCT GGGGAACAGA GCGAGACTCC ATCTCAAAAA AAATAAAAAA 240
CTTCAGCTTT TGCATGAAA 259

SEQ ID NO:4214

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05007

SEQUENCE DESCRIPTION:

GATCATGCTT TAAGGTTTAT GTAAAGAAAG TGTACTGATG TTCTTACATT AAAGCTTTAC 60
 AAAGATTAA A 71

SEQ ID NO:4215

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05008

SEQUENCE DESCRIPTION:

GATCTTGGTG GTAGTAGCTG TCTATGATTC TNGCTCAGCA AAGTAAATA AATGTAAAT 60
 ATGGAAA 67

SEQ ID NO:4216

SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05009

SEQUENCE DESCRIPTION:

GATCAAATGA AATAATGTAC ATGAAAAGAC ATATATAAAA TGTATAATAC AGACAAAGGG 60
 NCCTGTTACA CAGTTGGAAG TCATNCCCTC AGATTTTGGG CCTAGGAAGG TAGGTGATT 120
 AAACTCACTG AAAGCANNNG NNN 143

SEQ ID NO:4217

SEQUENCE LENGTH:362

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05010

SEQUENCE DESCRIPTION:

GATCACAGCC ACTGGTCCAT AACAAATTAGG AAAACTCATT GGACAATGGT TGTCAGGTTC 60
 CTCCATTGGA GGAATTTGTG TTTCATGATT AGGCACTGTT TCTGCTCCTT AAAAATGACT 120
 TTCCAGTCTA TCCTCCACAG CTCITTGTTC TACACTCTAG GGAATCATT CTTTTCCCTC 180
 ATCTTCCTTA GTCATTGCA AAGGACATTA GAGAATATGC CCTTTTGGT GGATAAATGG 240
 GTTCTTCAAC CTGCTTTCTG CCTGTAGAAA ATTAGAGGCC AATAATCTGT TTATATCTTG 300
 TAGAATGTCT ATTTAGCTG GTACCGGTAC TTTGTCAAT AAAGTTCTTT TTAAACTTA 360
 AA 362

SEQ ID NO:4218

SEQUENCE LENGTH:213

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05011

SEQUENCE DESCRIPTION:

GATCTGNGAA GAGCACATAT GTGTCAGGGC ACAATTCCCN CTCATAAAAA CCACACAGCC 60

TGGAAATTGG CCCTGGCCCT TCAAGATAGC CTTCTTTAGA ATATNATTG GCTAGAAAAGA 120
 TTCTTAAATA TGTGGANTAT GNTTATCCTT AGCTGGAATA TTNCTCTAC TTCCTGTCTG 180
 CATGCCCNAG GCTTCTGAAG CAGCCAATGT CGN 213

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SEQ ID NO:4219

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS05013

SEQUENCE DESCRIPTION:

GATCACTACA ACANTTTNTT TGCCTCCAAG GTCCTCTGAG GCAGCAGGCT CTGGGGCTTC 60

TNCTGTCCCT TGGAGGGTGT CTTCTGGGTA GAGGGATGGG AAGNAAGGGA CCCTTACCCC 120

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CGGNTCTTCT CTTGACCTGC CAATAAAAAT TTATGGTCCA AGGGAGAAA 169

SEQ ID NO:4220

SEQUENCE LENGTH:235

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS05014

SEQUENCE DESCRIPTION:

GATCGCGCAG GATTTCAAAA CCGACCTGAG GTTTCANAGC GCANCATCGG TCGGCTGCAG 60

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GAGGCTAGCG AAGNANCCTG GTGGGTCTGT TCGAAGATAC CAACCTGTGT GCCATCCACG 120

CTAAGAGAGT CACCATCATG CCCAAAGACA TCCAGTTGGC TCGCCGGATA CGGGGAGAGA 180

GAGCTTAAGT GAAGGCAGTT TTTATGGCGT TTTGTAGTAA ATTCTGTAAA ATAAA 235

SEQ ID NO:4221

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SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05016

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SEQUENCE DESCRIPTION:

GATCAAAGTC CTACAGTGGC TGTCACGCAG CCACNAGGTC ATCTCCTTTC ATCCCCACCC 60

CAAGGCGCTG GCTGTGACTC TGCTTCCTGC ACTGACCCAG AGNCTCTGCC TGTGCATGGC 120

CAGCTGCGTC TACTCAGGTC CCAAGGGGTT TCTGTTTCTA TTCTTTCCTC AGACTGCTCA 180

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AGAGAAGCAC ATGAAA 196

SEQ ID NO:4222

SEQUENCE LENGTH:262

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS05018

SEQUENCE DESCRIPTION:

GATCTGCACC AGACTGTTAC CTTCTGGGGG AGATGGAGAT TTGACTGTTT AAAAAGTAA 60

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AACAGCGAGG AGTCTTTCTA GAACTTTTGA AACTAAAAAG GATGAAAAAA ATTAGCAAAC 120

CGAAGTTTCT TCAATGACCC CTCGAGAACT TTGGGACCAG TTTCTATGG GGGACTCAGT 180

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TTCAGAGAAC TGAGACAGAA GCTCTTCTGT CGTTATATTC TTCTTTCCCT TTTTGGATT 240
TATTAAATAT TTTCTGTGGA AA 262

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SEQ ID NO:4223
SEQUENCE LENGTH:277
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

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CLONE:HUMGS05019

SEQUENCE DESCRIPTION:

15

GATCCTGCAG TGTCTGTGG GTTCATCTCG GATGGGCGCT GCATAAACAG CCTGCAGGGA 60
ACGTCTGGGA GAACCAGCTT CACAACAGAT ATAATAAGGA AGAAGTTTGA AATATTGCAA 120
GANTTGCAGAA AGTGTGACAC ACAGATACAA AGTGGGCACA TGCTCGTGGG AAAATGTTGC 180
CAATAGACTT GCTTGACTCT GGAGTTACCC CGAACCTTCA ATTTGTTTAA AAAAAAAAAAN 240
GGGCANTTTN TTGNNNGCA NTAAGGTGNC CTGCAAA 277

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SEQ ID NO:4224
SEQUENCE LENGTH:271
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

CLONE:HUMGS05021

SEQUENCE DESCRIPTION:

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GATCGCGTCC ACCTTCATCG CTGTGGTGCA AGCCATCGTC CGCACGGCTG GTGGCTGGGC 60
AGCTGCCTCG GACTCCAGGA AAGGCGGGGA GCCTGCCGGC TACTGAGTGC TCCAGGAGGA 120
CAAGGCTGAC AAGCAATCCA GGGACAAGAT ACTCACCAGG ACCAGGAAGG GGACTCTGGG 180
GGACCGGCTT CCCCTGTNAG CAGCAGAGCA GCACAATAAA TNAGGCCACT GTGCCAGGNT 240
CCAGGTGGCC TNCCTGGNCT GTTCCCAA A 271

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SEQ ID NO:4225
SEQUENCE LENGTH:138
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

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CLONE:HUMGS05023

SEQUENCE DESCRIPTION:

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GATCCACGGA AGACTGTCAG CAGACTTCAC CAGAAAACTT TCACGCCAGA NGGCAGTCGT 60
GATATATACA AAANGCTGAA AGGAAANCAC TGCCATCCAG GANTACTATC TCCAACNTC 120
CTGTGTTTCA AAANTTAN 138

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SEQ ID NO:4226
SEQUENCE LENGTH:64
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

CLONE:HUMGS05024

SEQUENCE DESCRIPTION:

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GATCTGCATT TAAAAATATG GTCTTTGTTT TATATGATTA AATGGTTTGT TTTCATAGAT 60
GAAA 64

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SEQ ID NO:4227
SEQUENCE LENGTH:296
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05025
SEQUENCE DESCRIPTION:
GATCCCGGCT GTTGGTGAGC AAAGAGCCCA GGCCCTAGA GTGCGCATGT NCAGGCTCCG 60
CTGTTAGANT CACAGCGGTT CAAATCCGGC ATCTGGTCGC TGAGTGGCCT CAGGCAGTGA 120
CCACGCTCCC GGACCAACC TTCAGCTTGC CCAAAGCAAT AATCTTTCCT AAAGAAGTGC 180
TTGGNTGGGG ATGGTGGCTC ACGCTTGTA ATCCCAGTAC TTTGGGAGGC CAAGGCAGTC 240
TGGGCAATAT AGTGAGGCTC CCATCTGTAC TAAAAATAAA AAAGTTAGGC GTGAAA 296

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SEQ ID NO:4228
SEQUENCE LENGTH:135
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05026
SEQUENCE DESCRIPTION:
GATCAGACCT CTCATGCTGT GGAGATGAAA AAGCCCTAAA GTTTATGTTT CTAATGTGTC 60
ACAGAATAGG ACGATATGAT TCTACAACAT AATCAACTCC CTATTAAATT CTTTAATGAA 120
GATTTTTTTT TAAAA 135

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SEQ ID NO:4229
SEQUENCE LENGTH:337
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05027
SEQUENCE DESCRIPTION:
GATCCTCTTT CTAGCATGAA TGAAGGATGC CAAGAATGAG AAAAAGCAAG GGGTTGTGCC 60
AGGTGGCCCC TGAATTCTGC GCAAGGNATG GGCCTGGGGG AACTCAAGGG AGGGCCTAAA 120
GCACTTGTA CTTTGAACCG TCTGTCTGGA GGTCAGAGCC TGTTGGAAG CAGGGGTAGA 180
GGGGAGCCCT GGAAGCAGGG CTTTCCGGA TGCCTAGGGG TGGGCAGTGC CAGCCCTCC 240
TCACCACTCT TCCCCTTGCA GTGGAGGAGA GAGCCAGAGT GGATACTATT TTTNATTA 300
TATATTATTA TATGTTAATA AAAAANTCAT ATCCAAA 337

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SEQ ID NO:4230
SEQUENCE LENGTH:179
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05028
SEQUENCE DESCRIPTION:
GATCCTTCGC GAGCGAGTGA ACAAGAGGCG GGTGAAGGAG ATGGTGAAGG AGTTCACACT 60
GCTGTGCCCG GGTCTCCATG GCACAGGGA CACAGCTGAC TACTGAGGGG TGCCCCATC 120
CCATCCACCC CTTCTCTTCA TCCTTCCCTA TTCCCAAAGN GTAAACCTGG NCCCTNAAA 179

SEQ ID NO:4231
 SEQUENCE LENGTH:207
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05029
 SEQUENCE DESCRIPTION:
 GATCGCTGGA CGCTATGAGA GGGCGTCCCA GGGCCCAGCC TCCCACAGCC GTTTCAGCAG 60
 GGACAGGGGC TGAACAGGCC CTATTCCAGC CCCCTTGCTT CACTCTACCG GACAGACGGC 120
 AGCAGTCCCA GCTCTGGTTT CCTTCTCGGT TTATTCTGTT AGAATGAAAT GGTTCCCATA 180
 AATAAGGGGC ATGAGCCCTT CCTCAAA 207

SEQ ID NO:4232
 SEQUENCE LENGTH:386
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05030
 SEQUENCE DESCRIPTION:
 GATCTGAAAT AGTTTTCTTC CACTACATTG TTGAAATCAA TGAAGCAATT AGTTTCTCAT 60
 TCAGAAATGT GCACACTAAT ATTTAGTTTT GCTTTCTCGT GGATAATATT AAGCNCTTAC 120
 TCTGCAGTTT CCTGGAAGTT GTGTCAACTG CAGTGATACT ATTCAGGATG GTGGGAAATC 180
 CCCAAAAATA TGTATGTGTG GGCTTGCTTA GATTACTATA TTTCATAGTT AATCTTTTGT 240
 CTCTTGCGGT GTCATGATG TGTGGGGCAC ACGGAAGGCA TTGCTGTAGT CAGTCATTTT 300
 GGTTTTCTTC TATAGCCATT TTATTATTTT AGTGTATTAG TTATGAAGAT AATATTNNCT 360
 ATTTGTAAT NGCTACTTTG TATTTN 386

SEQ ID NO:4233
 SEQUENCE LENGTH:356
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05031
 SEQUENCE DESCRIPTION:
 GATCTTCANA TTGCTGTGAT TAATGCATCC AGATTNTTTT CCTAGTATTT CCAGGTTAGA 60
 ACCTGTGGAT TGTTTCANTT GCATATAGCT TGGTTTCCAT AACATAGAGC ATTGGTTGAC 120
 TGTTTACAGA AGACTCACTC ACCAGGATAA ACATTGCNGT ATGTNACAGT AAAGCTATCT 180
 GGAGAGANCA CATAAATGAT TTTGGCATA CATTAGAGAA ACCATTTGTA AAACCTCAAAT 240
 GNCCACATAA NGCTTATCAG GGGGTCTAGA TTGGTNTTGT NNTATAACCAT ATGGGATGAN 300
 GNAAANTAGA AATGTCAGTA GAACTCATTG AGGGTGCTCT NGCCAGCTGC NGANAN 356

SEQ ID NO:4234
 SEQUENCE LENGTH:105
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05033
 SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCTGCTTT TTTNAAATGT TAAGGACATA TTTTNAAGTT ACTGCTGAGT GAAGAAAGAA 60
CATAGCTCCC CCTCATTCCC TGCCTAAGAA AGGAGCTTAA AGAAA 105

5 SEQ ID NO:4235
SEQUENCE LENGTH:343
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05034

SEQUENCE DESCRIPTION:
GATCAGGGCC TTCCTGCCTC CCGCTGGGCA GGTCTGGCCT TGCNCTCTTG GCAGGGCCCC 60
AGCCCTCTA ACCACTCTGC AGCTCACCAT GCAGCTGATG CCAAANTTGT GGTGTCCAGT 120
GTGCAGCAGC CCTGGGAGCC ACTGCCACCT TCAGAGGGGT TCCTTGCTGA GACCCACATT 180
15 GNTTCACCTG GCCCCACCAT GGTGCTTGC CTGGCCCAAC CTAGCGTTCT GTGCCATGNT 240
AGAGCTTGAG CTGTTGCTCT NCTTCAGGGG AGGAAATAGG GTNGAGAGNG GGAAGAGNNT 300
TNGCTCCTAA GTGTTGCTGC TGTGGCTTTT TTTGCCTTCT GCN 343

20 SEQ ID NO:4236
SEQUENCE LENGTH:370
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05035

25 SEQUENCE DESCRIPTION:
GATCATTCA AAACCTATT CCTATGTAAC TGCATTGAGA ACTGCATATG ATTCGCTGAT 60
ATATGTGTTT TTCACATTG CGAATGGTTC CATTCTCTCT CCTGTACTTT TTCCAGACAC 120
TTTTTTGAGT GGATGATGTT TCGTGAAGTA TACTGTATTT TNACCTTNTT CCTTCCTTAT 180
30 CACTGACACA AAAAGTAGAT TAAGAGATGG GTTTGACAAG GTTCTTCCCT TTTACATACT 240
GCTGTCTATG TGGCTGTATC TNGTTNTTCC ACTACTGNTA CCACANCTAT ATTATCATGC 300
AAATGCTGTA TTCTTCTGTT GGGTGGAGAN AAAGGATTTC TTGNAGGTTT NGTTTTTAAA 360
ATTNAAAGCN 370

35 SEQ ID NO:4237
SEQUENCE LENGTH:529
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
40 CLONE:HUMGS05037

SEQUENCE DESCRIPTION:
GATCTGTTTC GTGCATTGGA AGACCCACCC CAAGCTTGGC AGNCGAGCNN ATTGTATCCT 60
GGGGCTCCCT TCATCTCCAG GGAGTCCNNT CCCCGGCCCT ACCAGCGCCC GCTTGGCTGA 120
45 GCCCCTACCC CACACCAGGC CGTCTCCCG GGCCTCCCT TGGAAACCTG CCCTGCCTGA 180
GGGCCCCCTCT GCCCAGCTTG GGGCCAGCTG GGCTCTGCCA CCCTACCTGT TCAGTGTCCC 240
GGGCCCCGTTG AGGATGAGGC CGCTAGAGGC CTNAGGATGA GCTGGAAGGA GTGAGAGGGG 300
ACAAAACCCA CCTTGTGGA GCCTGCAGGG TGGTGCTGGG ACTTAGGCCA GTCCCAGGGG 360
CAATGTATTG GCCTGGAAGG TGGGGTTTGG GATTNNGGGG GCTTGGTGCC AAGCTTTCCT 420
50 TTTNNANGNT GACCTTTNTT TNGTNCCTNC CCCTTTGGGG NGGGNTNAAA AGNCCCAAGT 480
TTGANANTGG GAAATAAANT TTTTTTGGGC CTCCGGNTTT CCCTTNAAA 529

55

SEQ ID NO:4238
 SEQUENCE LENGTH:365
 SEQUENCE TYPE:nucleic acid
 5 TOPOLOGY:linear
 CLONE:HUMGS05039
 SEQUENCE DESCRIPTION:
 GATCGTTTTC TGATTGTAT GCTTCACAAA CTTGGATTG ACAAAGAAAA TGTATTGNN 60
 10 NGAATTGCGA CAGTGATTC GCAACTNTCC TCAGTTCAGA TTTGACTGGT TTCTTAAGTC 120
 CAGAACTGCA ATGGAGCTCC AGNGGAGATG TAATACCTTA ATTNCTTTGA TTGAAAGAGA 180
 AAACATGGAA CTAGAAAGAA AGGAGAAGGC AGAGAAAAAG AAACGAGGAC CAAAGCCTTC 240
 ANCACAGAAA CGTAAATGG ATGGCGCACC TGATGGTCGA GGTAGAAAAA NGTGGCTGGA 300
 15 ANCTATGNNT ATGGTTTTNT TTCATAAATC ACTNAGCTTT ANACCNAGTA GTTCCTNTNA 360
 NTTTN 365

SEQ ID NO:4239
 SEQUENCE LENGTH:114
 20 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05040
 SEQUENCE DESCRIPTION:
 GATCATTACA ACANTGTNT GCCTCCAAGT CCTTGAGGCA GCAAGTCTGG GGCTTCTGTN 60
 25 TCNTTTGAGG GTGTCTTCTG GGTAGAGCGA TGGGAAGGAA GGACCCTTAC CCNN 114

SEQ ID NO:4240
 SEQUENCE LENGTH:312
 30 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05041
 SEQUENCE DESCRIPTION:
 GATCATCCGC GCGGCCCGGG CTCGTGGGGC GCCTGGAGTG AGGGTTCTGG TTCCCGCCGG 60
 35 CGAGGATTGT TAAATNAGT CTTGGAAGN AGACCCCTAG TGACTTCTTA AAGCAATCA 120
 TCGGACGACC AGTTGTGGTA AAATTAATTT CTGGAGTGGA TTATCGAGGG GTCCTGGCTT 180
 GCCTGGATGG CTACATGAAT ATAGCCCTGG AGCAGACAGA AGAATATGTA AATGGACAAC 240
 TGAAGAATAA GTATGGGGAT GCATTTATCC GAGGAAACAA TGTGTTGTAC ATCAGTACAC 300
 40 AGNAGAGACG GN 312

SEQ ID NO:4241
 SEQUENCE LENGTH:306
 45 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05042
 SEQUENCE DESCRIPTION:
 GATCGGAGTA CANAGTNACA NTTGGAGGGC AGGGGGACTN TAAGGCAAGG AGATTACAGT 60
 50 TGGGAAGGAG GCAGTGGCAG AGGGGTGAGG GACAGGGGCC CTTAAGTCCA GCGAGGAAAG 120

55

CTCGGTGTGG GCCCGTCTAC GCTCCGTTTG GGGTGACCTG GAACGCCTCT TCTACAGCTC 180
 CTNCAGCATC AGCAGCCTCT TGTCAAGTTT TGCCTCGCCC ANTCTATCCC AACCCAAATA 240
 AGACACTTTC TTCACGNCAT ATTATCTTTG TCCTTTCTTT TTTAAGAACA TCACAAAACC 300
 ATGAAA 306

SEQ ID NO:4242
 SEQUENCE LENGTH:287
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05043
 SEQUENCE DESCRIPTION:
 GATCTTAAAC CCAGTCTTGA CAGACTAGAA GTTAAGTTTA ATACAGAAAA TGTCCTGTTC 60
 ACTTGAAAGA AAAGACCTAC TTTTAAATG GACACTATCT TGGTTCTTTT TTTTAAAGTC 120
 ATCTTTTGT TATAAGTGAC CTTTGTCTGG AATGTCTGAA AAGTAGTTAA TGCTTTTNGG 180
 TATTGAAGTA ATGGGTAAC AAAATGGACT TCCATAGTAT TGAAGTGA AGGAGCCTCT 240
 ACAATATTGA CTATATATNN NNATAAACTA CTGGCAAGGN ACTTAA 287

SEQ ID NO:4243
 SEQUENCE LENGTH:324
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05044
 SEQUENCE DESCRIPTION:
 GATCTCCACT GTTGGGTGGG TGGGCCCTGC CGGGACCCTG CTTCACAGGC AGGCTTTTCC 60
 TCCAACCTGT GGCCTGCAG CAGGGCAGGA AGGGGAAACA CAGCTGATGA ACTGTGGTGC 120
 CACATGACCC TTGTGGCACA GATGCCACG TATGTGAAAC ACACATGGAC ATGTGTCCCA 180
 GCCACAGTGT TATGCTCTGT GGCNGGCTCA CTTTGTCTGA GTTCCGGGGT GCAATGGGGG 240
 AGGGAGGGAG GGAAGCTTC CTCCTAAATC AAGCATCTT CTGTTACTTG ATGTTCAATA 300
 AAAGAATAGT TGGCAAGGCT GAAA 324

SEQ ID NO:4244
 SEQUENCE LENGTH:65
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05045
 SEQUENCE DESCRIPTION:
 GATCATTCAT ATGTGTACAT AAAATTTTAA AAATAAAGG AATTGACTGC TTTGTTAATG 60
 AGAAA 65

SEQ ID NO:4245
 SEQUENCE LENGTH:288
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05046
 SEQUENCE DESCRIPTION:

EP 0 679 716 A1

5
GATCCAGAGA ATGAATCCCT GACCGCATCA CCTAACTGT CTTCCAAACA TGAGACAAAG 60
CTGACTGTTT AACTGATTG CCCAGCACAT ACCGTCTTGC CAGTTTCTTC TTTTCTCCCA 120
GTCTCCTGTT CATCCATTCT GTTCTCCCTT GGGGTGGGAA TCTATGATGG AGGTTACTGG 180
GGAAACAGCT CAGCAGATT TGGAGACCA AACCAAAGGT CTCCTAGGA AATTATCTG 240
TTTAAAAACA TTGCTTCCTT CCTGGCTCTG CTAAATTGAA TGCTCATN 288

10
SEQ ID NO:4246
SEQUENCE LENGTH:333
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05047
SEQUENCE DESCRIPTION:
15
GATCTCTGCT CCTAACGATG AAGACTGGGC CTATTCACAG CAGCTCTCTG CCCTCAGTGG 60
TCAGGCGTGC AATTTTGGTC TGCGCCACAT AACCATTCTG AAGCTTTTAG GCGTTGGAGA 120
GGAAGTTGGG GGAGTGTTAG AACTGTTCCC AATTAATGGG AGCTCTGTTG TTGAGCGAGA 180
AGACGTACCA GCCCATTGGG TGAAAGACAT TCGTAACTAT TTTCAAGTGA GCCCGGAGTA 240
20
CTTCTCCATG CTTCTAGTCG GAAAAGACGG AAATGTCAAA TCCTGGTATC CTTCCCCAAT 300
GTGGTCCATG GTGATTGTGT ACGATTTAAT TGN 333

25
SEQ ID NO:4247
SEQUENCE LENGTH:288
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05051
SEQUENCE DESCRIPTION:
30
GATCCTCCAC AGAGAGGAGG GGACCAATTC TGGACAGACA GATGTTGGGA GGATACAGAG 60
GAGATGCCAC TTCTCACTCA CCACTACCAG CCAGCCTCAG AAGGCCCCAG AGAGACCCTG 120
CAAGACCACG GAGGAGCGA CACTTGAATG TAGAATAGGC AGGGGGCCCT GCCCCACCCN 180
ATCCAGCCAG ACCCCACGNT GACCATGCGT CAGGGGNCTA GAGGTGGAGT TCTTAGCTAT 240
35
NCTTGGCTTT NAGAGCCAGC CTGGNTCTGN CCNCTCCNC CATGGGGN 288

40
SEQ ID NO:4248
SEQUENCE LENGTH:170
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05052
SEQUENCE DESCRIPTION:
45
GATCTCTAAG TGACCACCAG GGGCTCTGAA CTGCAGCTGA TGTATCAGC AGGCCATGCA 60
TCCTGCTGCC AAGGGTGGAC ACGGCTGCAG ACTTCTGGGG GAATTGTCGC CTCCTGCTCT 120
TTTGTTACTG AGTGAGATAA GGTGTTCAA TAAAGACTTT TATCCCCAAA 170

50
SEQ ID NO:4249
SEQUENCE LENGTH:136
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
55

CLONE:HUMGS05053

SEQUENCE DESCRIPTION:

5
GATCTACATA GATTTGGAAA CTGTTTTCCT CTGTTTGGT CTCTTGGGCA ACATTTTGG 60
CCCAAGTTTG GGCAACATTT GGCCCAAGNT TGGGCATTTT GGCAGTAGCT GTATGGNAGA 120
AAAAGAGTAA GAGGAN 136

SEQ ID NO:4250

SEQUENCE LENGTH:100

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05054

SEQUENCE DESCRIPTION:

10
15
GATCNTTTGC TTTAGNGTGT AAAGTNTGTC TCTGAACAGA ATTATTTGTA AAAGTTAGGA 60
GTTCTTTTTT AAATCATTAA AAGAGGCTTG NTGAAGGAAA 100

SEQ ID NO:4251

SEQUENCE LENGTH:204

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05055

SEQUENCE DESCRIPTION:

20
25
30
GATCCTAGAG CCCTTCACTT CGGNTTACTC CCTCTTTTTT GCCTCTNTTT NTTAGTTGGA 60
AGAAATAAAC TCACAAATTA TGGTGACAGTA ATTNCCGGG GAAAGTAAAG CCTCAGGAAT 120
GCCCACGCCCT TTTTCCAAA GCCTTTNTCT CTGAGACCTC TTAAGTTCTA AGATTAAATG 180
CCCCTCGCTG TTTCTCCTCT GAAA 204

SEQ ID NO:4252

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05056

SEQUENCE DESCRIPTION:

35
40
45
GATCAAGGAG CAATTATGAA GGTCTACAAG CAAGANCAAG AGGAAGAATT ATNGAAAAAG 60
TTGGCAAATG NCCCCAGATG GAAGAGATAC AGGAGATGGA TGAAGAATGA AGGGCCTGGG 120
CGGTTAACAT TTGTGGATGA CTGANGATTG ATGGAATGCT ACTATGCCAA ACCTTAATTG 180
TGATATTATT TTCATAACTG ANTTATTTTA GAAATGTATC ANTNGACTGC TGCTCAGCAG 240
TAACTAAAAT TCCTCAAGTA TTTGATTTAA CAGATTAATG TCAAANTTTA AACCTTCCCT 300
TAAAACTTTN 310

SEQ ID NO:4253

SEQUENCE LENGTH:267

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05058

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

5
GATCTAATTG CATTGGTTAA AAGCAGCTAA CCAGGTCTTT AGAATATGCT CTAGCCAAGT 60
CTAACTTTAT TTAGACGCTG TAGATGGACA AGCTTGATTG TTGGAACCAA AATGGGAACA 120
TTAAACAAAC ATCACAGCCC TCACTAATAA CATTGCTGTC AAGTGTAGAT TCCCCCCTC 180
AAAAAAGCT TGTGACCATT TTGTATGGCT TGTCTGGAAA CTTCTGTAAA TCTTATGTTT 240
TAGTAAATA TTTTTGTGA TTCTAAA 267

10
SEQ ID NO:4254
SEQUENCE LENGTH:307
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05059
SEQUENCE DESCRIPTION:
15
GATCANAAC CAAACGGGCC GGNNTTCTA AGGTGTNGGT ATGTGGGGAG TGGTACAAAA 60
TGGTCTGATG CTCCTTCAA AACATTCACT TTTACAACG TCAAGGAATT AAGCATAAAA 120
AAGATTGGTT AAAAGCTTTG GTTCTAGTA AAGGTTAGTG TGTGTGGTTT TTTAAGAAG 180
CTGTNTTGT AATNATTTT TACTTGAAT GTTCAAACA GATTCAGGC TGCAAACTTG 240
20
TTNATAATC GTNNGCTTCT CCAAGTGAAG CTCAGGAAT ACCTGGAAAA TAGCTGTAAC 300
GTTCGCN 307

25
SEQ ID NO:4255
SEQUENCE LENGTH:297
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05060
SEQUENCE DESCRIPTION:
30
GATCTAATAA AAATTGAAAT ATGCCTTTTA GAATGGCTTT CAAAGATAAC AAATGCTGGA 60
GAGGATGTAG AACAACTGGA ACCTCTCGGT TATTGCTGGT GAGACAGCCG CTTTGAAAAA 120
GTTTGAGTTT CTTACAAAAT TAACTTACA CTTACACTTA CCATATGACC CAAAAATTCC 180
ACTGCTTGCT CTTTACTCAA GTATAAGGAA AATCTATGTA CACACAAAAC TNGTACGTGA 240
35
ATATTTATTA ATAGTCATTT TATGCCCCAA ACTAGNAATA GTCCAAATGT TCTGGGN 297

40
SEQ ID NO:4256
SEQUENCE LENGTH:208
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05061
SEQUENCE DESCRIPTION:
45
GATCTNTATT NTTTTNGCAA CAGACTTCAA GTGGTCCCTC TTTTTCCT ACACACTCAG 60
CTCTTCTCTA AAAGCAAGGA TTTGGAATGA NCAATTCACT TTGACAGAAA AAGCTGAATA 120
AAATGGCATC TGTAATTGAN TTGTTGAAA TGCCTTTTN GCTCCTAAAT NTAAACATC 180
ATTAATAAAA TANTGTTTCA CAAAGAAA 208

50
SEQ ID NO:4257
SEQUENCE LENGTH:208
SEQUENCE TYPE:nucleic acid

55

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS05062

SEQUENCE DESCRIPTION:

5 GATCACAGGA AGACTTTGTA AGGACAGTTT AAGTTCTCCT GCAAGGTTTA ATTTGTTATC 60
ATGTAAATAT TCCAAAGCAG GNTGCCTTGT GGTTTTGGCC AGCCTTGTGC TATGTTGATA 120
AGATTGATTT ACTGCTTAAA ATCACTTTAC TTTATCCAAT TTTTACTGAA CTTTTTATGT 180
AAAAAAATAA AATCAATTAA AGAACAAA 208

10 SEQ ID NO:4258

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15 CLONE:HUMGS05063

SEQUENCE DESCRIPTION:

20 GATCAGTTT CTATTTAAT GTGTAAAAA AATAACTTGT CGTATCCCAT TTAAAGGCCA 60
ATTTCTGTAT TCAGGCAGGC ATATGTACAT ACATGAATAA AGCCAACAAA AGTGTGCACA 120
TGTAATA 126

25 SEQ ID NO:4259

SEQUENCE LENGTH:552

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS05064

SEQUENCE DESCRIPTION:

35 GATCGGGGTG CCCCTCAGCC TTCAGACACT CTGAGCCCCA GANGCAGCAA AGGGTGAGCC 60
TCCTGCCTTG GTTCTACCA CCATCTGGTG GTCAATGGCG GGA CTGCAGT CGGCCAGGGA 120
CTGCGGTGA CCTACACCTT CCTCCCTGA GACATCAGCT GGCATGCCTC CAAGCCCTCT 180
GCGCATGCC TCATTCTCTC CTGCCCCCTG GCTGACTTTG CATGTTGACT TGAACCCCTC 240
TGGGGAATCT NTGTGCATGT CCACAGCCCC TGGTTATGCT CTCACAGCCA CTGCCCCCTNT 300
CTNTGTTTCTG GCTGAGCTGG CTGACCGACC CAATCCCNCT AACC GGCCCTC TGCCCGNTGA 360
NCCGGTGGTT GAGAAGCCCG AAGTCTNAGG GGGCCAGCAA GGCCCAACC NCAAGGNAGG 420
CAATTGCTTG CNGGACCCCA AGGGGNCGGN TNGCCAATGG GGGTGNACTT TGCCGGGCCA 480
AAGGGGNTNN GAATTTCGG CNCTTAAGTN GTNACCCTC AANANNAANG GGGCAAACGG 540
GTTTNGNAAA AN 552

40 SEQ ID NO:4260

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS05065

SEQUENCE DESCRIPTION:

50 GATCAGACCT TCTTGGGGTC TTCTGGCCAG AGCTTGTCAC CAGCCCCATG GCCTCTCCAG 60
GCGTGCTCAT GCCACAACC CGGGGCCAGC CCCACGTGGT GCCGCTCAGC CTTCTCTGCC 120
CCTCCTGGGA ATCTGTCATT CGTGGGTGCT TCAGAGTAAA ATCAATGAGT TTCTGAGAAA 180

55

SEQ ID NO:4261

SEQUENCE LENGTH:553

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05066

SEQUENCE DESCRIPTION:

GATCAGCGTG CGGGGTGTGA AGATAGGCGT CAAGGCCGAT GACTCCCAGG AGGCCAAGGG 60
 GAATAAATGT AGCCACTTTT TCCAGTTAAA AAACATCTCT TTCTGCGGAT ATCATCCAAA 120
 GAACAACAAG TACTTTGGGT TCATCACCAA GCACCCCGCC GACCACCGGT TTGCCTGCCA 180
 CGTCTTTGTG TCTGAAGACT CCACCAAAGC CCTGGCAGAG TCCGTGGGGA GAGCATTCCA 240
 GCAGTTCTAC AAGCAGTTTG TGGAGTACAC CTGCCCCACA GAAGATATCT ACCTGGAGTA 300
 GCTGTGCAGC CCCGNCC TTC TGGGGTCCC CCCAGCCCCT NAGGCCAAG TTGCCAGGGA 360
 CAAGCTTGGC TTGCTGGACA AGGGATGTTG GCAACTTGNT TTNAGGGAGG GGGGCAACTT 420
 GNCCAACCGG CCANNNGGN CAAAGGAAA GTTNGGGGGG NCCCGTTTGG NCCAANGGGT 480
 TAGGGGAAG GGGTTGGGG GNAATTNGG GNGGNGGGG AAATTTCNA GTTTTANTTG 540
 TTAATTTTTT AAA 553

SEQ ID NO:4262

SEQUENCE LENGTH:314

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05068

SEQUENCE DESCRIPTION:

GATCTCCCGG ACCCTGAGG TCANATGCGT GGTGGTGGAC GTGAGCCACG AAGACCCTGA 60
 GGTCAAGTTC AACTGGTACG TGGACGGCGT GGAGGTGCAT AATGCCAAGA CAAAGCCGCG 120
 GGAGGAGCAG TACAACAGCA CGTACCGTGN GGTGAGCGTC CTCACCGTCC TGCACCAGGA 180
 CTGGCTGAAT NGCAAGGAGT ACAAGTGNA GGTCTCCAAC ANAGCCCTCC CAGCCCCCAT 240
 CGNGAAAACC ATCTCAAAG CCAAAGGGCA GCCCGAGAA CCACAGGTGT ACACCCTGCC 300
 CNCATCCCGN GACN 314

SEQ ID NO:4263

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05069

SEQUENCE DESCRIPTION:

GATCCAGGGA ACAATGACTA TAGGTGAGCA GATGCTTTAA ATTAAGGAAA GATGGAGAAG 60
 AAGCCAAC TA GAAATTAGA GAACACAGCA AGCAAAGAGA AGCAAGCGAG TCCCCTTGAG 120
 TGATGCCAAT ACTTTTTTTT TTTTTTTT NGANANATTT TNTNNCCANT NTGGTN 176

SEQ ID NO:4264

SEQUENCE LENGTH:389

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05070

SEQUENCE DESCRIPTION:

5 GATCTTTNAG GAAAGACGGA TTGCNTTAGA AATAGACAGT ATATTTTNG TCACAAGAGC 60
 CCAGCAGGGC CTCAAAGTTG GGGCAGGCTG GCTGGCCCGT NATGTTCCCTC AAAAGCACCC 120
 TTGACGTCAA GTNTCCTTCC CCTTTCCCA CTCCCTGGCT CTCAGAAGGT ATTCCTTNG 180
 TNTACAGTGT GTAAAGTGTA AATCCTTTC NTTTATAAAC TTTAGAGTAG CATGAGAGAA 240
 TTGTATCATT TGAACAACTA GGCTTCAGCA TATTNTAGC AATCCATGTT AGTTTTGNAC 300
 TTTCTGTTG CCACAACCCC TGTTTTAAAT ACTGTACCTT TANTTAAATT TCNNGGTTNN 360
 10 TAGTTTTTTG CAACAGGTTT TTTCCCAA 389

SEQ ID NO:4265

SEQUENCE LENGTH:436

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05071

SEQUENCE DESCRIPTION:

20 GATCACCATG AAAGAAGAAT AGTTTTTGT CCCAGAGAC ATTCATTTAG TTGATATAAT 60
 CCTACCAGAA GGAAAGCACT AAGAAACACT CGTTTGTGT TTTAAAGGC AACAGACTTA 120
 AAGTTGCTCT CAGCAAGGA AAAATGATAC TGCAACTTTA AAATTTAAAG TATCTGCAC 180
 TGATAAATAT ATTTAANANT TGTATGTTA TAAAGTTATT AATTTGTTNN GNCNGTGTTA 240
 CAAAATGTTT AGTTTATATT GTTTTAGATT GTTTTGAAT TTTAAAGGT GTAAAATAAC 300
 ATATTTNTCC TTTATGGNNA TCTATAAAC TTTCTGGTAG TAAATGTTT TCATTTTAC 360
 25 TGGGTATATT ATTTGCTTCC ATGNTTTTGT TNCCNTCCA TAAGGNTTN NTGCCAGNTT 420
 TTTTTTTNN CAGGNN 436

SEQ ID NO:4266

SEQUENCE LENGTH:533

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05073

SEQUENCE DESCRIPTION:

35 GATCTGTCCC CATCCGAAGA GGCTTTGTGA ACTGCCTGCT GAATGGAAGG AAAGCAACTT 60
 TAAAACATTT AGAGTTTTGC TGAGTATAGC CAAATGCCTG TNCTGAACT TATAGGAAAT 120
 TGGAATTTTG TTTAAATTT TACACTTTAA GGTAGCAAAT GTCAATTATT NGNCCGAGCA 180
 TATTGTGAAG AATTAACTA AAATTAATAC GTACAGTTTT CTCTAATTAG GTGACTGTTC 240
 40 ATAATGGGTA TATTGGAAT TTAGAAGAAA TAATTTGTG GNACTTGTGG CCCTTATGTT 300
 TAACAGATTA ATTCAGCATT GGCGTATTN CTTGTCCCA ATACAAGGAT GCCAAAGGAG 360
 GGAAACAGGA AAAATTGCCG TCCCATTTTT AAAAATTTA GGGGTTTGGN TGGTTTTAA 420
 CCCNTAAATT TGTTCCCAN GGANCNTTTT TTTGGGGACC TTNCTAAATT TTTGGGGGN 480
 45 CATTTTNAAN TTAAAGGNAT TGNNGGGNNC NAAGGNNGTN TTTGANTTN TGN 533

SEQ ID NO:4267

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05074

SEQUENCE DESCRIPTION:

GATCAAGGAA GAGATGGAGG CTTTCCCCGA AAAGTTCTAG CTGAGTGGCA GAAAGTGAGAA 60
TTTGTAAGT TATGTACAAT GTACGTGTAA ATAAATGGAT TGAATTCAG TTTGTCATCA 120
GAAA 124

SEQ ID NO:4268

SEQUENCE LENGTH:451

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05075

SEQUENCE DESCRIPTION:

GATCTGGGAC AGATTCTACT CTCACCATCA CCAACCTGCA GCCTGAAGAT TTTCCAACN 60
ATTACTGCCA ACAGTATGAT AGTTACCCGC TCACTTTCGG CGGAGGGACC AAGGTGGAGG 120
TCAATCGANC TGTGGCTGCA CCATCTNTNT TCATCTTCCC GCCATCTGAT GAGCAGTTGA 180
AATCTGGAAC TGCCTCTNTT GTGTGCCTGC TGAATAACTT CTATCCCAGA GAGGCCAAAG 240
TACAGTGGA GGTGGATAAC GCCCTCCAAT CGGGTAACTC CCAGGAGAGT NTCACAGAGC 300
AGGACAGCAA GGACAGCACC TACAGNCTCA GCAGCACCCCT TGACGNTNAG CAAAGCAGNC 360
TACGNGAAAC ACANAGTNTA CGGCTGCGAA GTTNACCCCN TCAAGGGCCT TGAGCTTNGN 420
CCNGTCACAA AGGNGNTTNN AAACAGGNGG N 451

SEQ ID NO:4269

SEQUENCE LENGTH:197

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05076

SEQUENCE DESCRIPTION:

GATCTAGAAA CTGAGTTGTG GAGCTGACTC TAATCAAATG TGATGATTGG AATTAGACCA 60
TTTGGCCTTT GANCTTTCAT AGGAAAAATG ACCCAACANT TCTNAGCATG AGCTACCTCA 120
TCTCTAGAAG CTGGGATGGA CTTACTATTC TNGTNTATAT NGNAGATACT GAAAGGTGCT 180
ATGCTTCTNT NATTATN 197

SEQ ID NO:4270

SEQUENCE LENGTH:69

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05077

SEQUENCE DESCRIPTION:

GATCCCATCC CCTGTCTGA ACTGGAGCCA TGGGCACAAA GGGCCCAGAT TAAAGTCTTT 60
ATCCTCAAA 69

SEQ ID NO:4271

SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05079

SEQUENCE DESCRIPTION:

GATCTTGCCT CCCATCAGCC ATCTTTCTCC CAATAAATTT TTGTTTTGTG CAAA 54

5

SEQ ID NO:4272

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

10

CLONE:HUMGS05080

SEQUENCE DESCRIPTION:

GATCTAACCA ATTNAAATAT GANTTCATAC TCNAAAGTAT CAACAAAAAA ATGAAAAGAA 60
ATAGCTGGTT TGGNTGTAAG AAATGGTGTA ATTAATGGNT TTN 103

15

SEQ ID NO:4273

SEQUENCE LENGTH:449

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

20

CLONE:HUMGS05081

SEQUENCE DESCRIPTION:

25

GATCACTGCT GGCCTACTCT GGTACGGGG AACTGACGC CCGGGTCACC GCTGCCATAG 60
CCAGTAACAT CTGGGCCGCC TACGACCGGA ACGGGAACCA AGCGTTTAAAT GAAGACAATC 120
TCAAATTCAT CCTCATGGAC TGCATGGAGG GCCGTGTAGC CATCACC CGA GTGGCCAACC 180
TTCTGCTGTG TATGTATGCC AAGGAGACCG TGGGCTTTNN NNTNCTCAAG GCCAAGGCC 240
AGGCTTTGGT GCAGTACCTG GAGGAGCCCC TNACCAAGT GCGGCATCT TAACGGCATT 300
GGTGGAAGCT GGGGGTCAGA AAAGAGAAAT GACCCATTG NGAGGGGCTG GGGGNCCTCC 360
TAGGAAGAAC CTTTNTTAGG ACAATGGGGG GNAAGGGATG GGACTTTTNN TTTTITCC 420
AAGNATTAAT ACTTNAACT CCCTGTAAA 449

30

SEQ ID NO:4274

SEQUENCE LENGTH:247

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35

CLONE:HUMGS05082

SEQUENCE DESCRIPTION:

40

GATCTNCATA ANCAGGGTTC CTGAGCTCAC TGAAGAGACT ATTGTCCCTT AGGAAAAGCA 60
TTTCCTGTGT NTCGTNAGCA TCTGGCTCCA GGACAGACCT TCAACTTCCA AATTGGATAC 120
TGCTGCCAAG AAGTTGCTCT GAAGTNAGTT TCTATCATNC TNCTCTTGA TTCAAAGCAC 180
TGTTTCTCTC ACTGGGCCTC CAACCATGTC CCCTTCTCCT NAGCACCACA AATAATCAAA 240
ACCCAAA 247

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SEQ ID NO:4275

SEQUENCE LENGTH:424

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS05083

SEQUENCE DESCRIPTION:

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GATCATTTC CAAGATTGGT TTCCCTTGAG TTTTGCTAA AACAAATCTT AGTAGTTTG 60
 CCCGTTTAAA ACAACTCACA ATCGTAAATG CTACTATTCC TAAGATATCT NACCTTTTNA 120
 TTTCAGTTTA GCCATGTATT GTATGAGTGT ATTAGTCTAA GCAGTGAGAA TCTTNTCTAT 180
 GCCTCTATT CAGCAAAAAG TAGAAGTATC AAATAAANG GGCAACTTTT AAAATATTAA 240
 GCCTGAAGAC TTCTAAAANG ACANGANACA TGGCCTAANT ANCCAACATA GGATTACAT 300
 AGTANGTTTC AACTACCTT ATTACCAAAA GCAAACCACC TCTTACTTTT NNNCTACATT 360
 TATCCATGTA TATCTNTNGT ATGCTGGTCT TTNCTTTTT NGCCAAANTC NANCATTTTT 420
 TGNN 424

SEQ ID NO:4276
 SEQUENCE LENGTH:308
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05085
 SEQUENCE DESCRIPTION:

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GATCTAAAC TTCTGTTGCT TTTGCCATTC CAAAACTTTG TCTTGCCAG AAAAGTGTG 60
 GTAACATAA AGAAATTAT ATATGANCAC GGCAGTTTGC ACTGTGTTG AGTAGAACGT 120
 GTAAATGAAT TGTNCCCACC TTTGGTTTGC CAGTAAGTGA CTGGATTCTT GGCACATTTA 180
 TGTTCACCAA AGTAGACAA GAAGATATTA TTNCTATTTA TCAAGCAAAA GGAATTTTAA 240
 GATTTTNTT TTNCNTTAAA ACCAANTTGG GATTTTNNNN TTNNTTTN TTTGGGGGAA 300
 AAGGNTTN 308

SEQ ID NO:4277
 SEQUENCE LENGTH:374
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05086
 SEQUENCE DESCRIPTION:

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GATCGAGTCC GCCATGGAGA GGGACCGCTA CATGAGCCCC ATGGAGGCCC AGGAGTTTGG 60
 CATCTTAGAC AAGGTTCTGG TCCACCCTCC CCAGGACGGT GAGGATGAGC CCACGCTGGT 120
 GCAGAAGGAG CCTGTAGAAG CAGCGCCGGC AGCAGAACCT GTCCCAGCTA GCACCTGAGA 180
 GCTGGGCCTC CTCTCCAGAN TCATGTGGAG GGGCCAGAGG CTGCCAGACC CCCAGCTGGG 240
 CCCTGCTCAC CCCTTGTGTC TGGGCTTGA GGGGCTNTT GAGGAACCTT TAATTTGCAG 300
 GGGTGCCCGN TATGGACGGG GCATTNCAGC TGAGACACTG TGGATTTTAA ATTAAATCTT 360
 TTGTGGTCTT TAAA 374

SEQ ID NO:4278
 SEQUENCE LENGTH:510
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05087
 SEQUENCE DESCRIPTION:

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GATCTGTGCT TTCCAGCTCA CCCCCACAC TCACTCCTGA GACCCCTGGC CTCCGGCGTC 60
 ACNTCCAGCN TCTGTTCCCC TAGTAAGTGC CTTCCATGTC GGCCTCTAAC CCCAGGCCCC 120
 GAGGACCCAG ACCCAGTGGG GAGGCGGACG TTCCAGCCGG CATGGNTGGG AACTGCAGAC 180

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5 CTGTCCTCCT GGTGGGTCCA GGGGCCCCCTC CAGCTTGTGG AGCCCCACAN TGGGGTGCCG 240
 CCTGCCCGTT TTTTCCCAT GGAGCCCCAG CCCCCTTTGG GCCCAGGGAC ACCAGCCAGG 300
 CTCTGTGCTG ACCCTCCTGT TGCACCCAGN CCTGGTNTCA GCAGCGACCA CCCCTTGCNT 360
 TCACCCTTTG GAGCTTTTGC AATGTTTCCA NTAAANCCCN GGGNTGGGT NGGNAAGGTT 420
 GGGAGGTTGT TAAGGTTGTT TNGGTGNCT TTTGAAAGG GGNAGGATNA ATTAACCTTG 480
 ANCCNNTGGG GCGGNGNGNC TTTGNGGTN 510

10 SEQ ID NO:4279
 SEQUENCE LENGTH:466
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05088

15 SEQUENCE DESCRIPTION:
 GATCTAGCTT GGAGAGCTTG TGAATCTTAG GAGAGCTAGG CATAGAATGA CTAAAGTTTG 60
 TCACCGCATG AGATAAAATA AATGAAAAGC CACTTCTGGA GGAATGAGG CAGTCTGCCT 120
 TTNTTGGAGA GATACATATT GTTGAACAGC TCTGGGCAGT TGATTGTTTG CCTGGGAGAG 180
 20 CTAACCATGT TTA CTCTACA CTTGACCTGT GATGGTCTGT ATTGATTGTN TCACACGCTT 240
 AGCTTTCTAA GGCTAACCAG GTCATCGTCC TCAGTCCCTG CCTGCAACTA GGTGCGCAAC 300
 TGGCCCTTGA TTTCCACCC AACTTGTTC GTTTGCCTC AATCCTGGG CCTCACTNAT 360
 TTCCCCAAA NGATATGGT TGGTACCACC TGTAGTTTNC CTGTTGCATG GTTAAACCTG 420
 25 ACTTTTGGG GAAACTNAAA ATANAACANT TTTTCAAAC GGGAAA 466

SEQ ID NO:4280
 SEQUENCE LENGTH:470
 SEQUENCE TYPE:nucleic acid
 30 TOPOLOGY:linear
 CLONE:HUMGS05089

SEQUENCE DESCRIPTION:
 GATCGAGCCA CTGCTGAAGA ATGTCTAAAG CACCCCTGGT TGACACAGAG CAGTATTCAG 60
 35 GAGCCTTCTT TCAGGATGGA AAAGGCACTA GANGAAGCAA ATGCCCTCCA AGAAGGTCAT 120
 TCTNTGCCTG ANATTAATTC GGATACCGAC AAATCAGAAA CCGAGGAATC CATTGTAACC 180
 GAAGAGTTAA TTGTAGTTAC TTCATATACT CTAGGACAAT GCAGACAGTC TGAANGAG 240
 AAAATGGNGC AAAAGGCCAT TTCCAAACGA TTAAATTTG AGGAACCTTT GCTACANGAN 300
 ATTCCAGNG ATTTATCTA CTGAGCAATA TTTCCCTTN GAACTTCAAG ATTTCTNCAC 360
 40 TGNANAATTN TTAATNTTN TTTTTTGGG GCCCTCTGGG CCAAATTGGN GNCATGTTCC 420
 TTTGNAGGTG GGTAAACCA GTTNTCACTT TNCACCAGTC CANNTNTTN 470

45 SEQ ID NO:4281
 SEQUENCE LENGTH:476
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05090

50 SEQUENCE DESCRIPTION:
 GATCTACAGT CACCATATAT ATCAGCAGGA CCTAAGGNA AAGATTTTGG ATGTTGGGAA 60
 AAGGTTAGAT GTGACTGGAT TTTGCATGAC AGGNAAGCCT GGTATAATCT GTGTGGAGGG 120

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5 TTTCAAAGAG CACTGTGAGG NGTTCGGCA CACAATTAGG TACCCCAATT GGAAGCACAT 180
 TTCTGTAAAG CATGCTGAAA GCGTGGAGAC AGAAGGAAAT GGTGAGGACC TCGGCCTTTN 240
 CCATTCTTTT GAAGAGTTAC TCCTTGAGGC TCATGGTGAC TATGGATTAN GGAATGACTA 300
 TCACATGANT CTGGGCCAAT TCTTAGAATT TNTCAAGNTG CACAAAATTT NAGGCATGTT 360
 TTTTCCNGT TACTATTTTG GGTNTTNTNA AGCAAAAANT TTCAGNCTTC NTAAAAGCG 420
 GNTTAAAGGG GGNCTATTG NCCTGTNAAT TTTCCACTNA GGCAGGTNT TTCTTN 476

10 SEQ ID NO:4282
 SEQUENCE LENGTH:277
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05092

15 SEQUENCE DESCRIPTION:
 GATCTGAATT GTNCGAAAAG CAGCCAGTGC CTAANTTGTA GCTCCACTTA TGCCAACTGT 60
 ATATATACCT CTCGTGAGCA TAGCAAGTNA TTTANTATTT TNAAGATG GCTAAATCC 120
 TTTTAATGAA CAGCACTAAA GTTATATGTA TTAGAGGAGA ATTATTGANT GANATGGAGA 180
 20 AAGAGTTCTG AAATTANTAT TTNCATTTGG GCTTTTTTAC AGATAATATT ATATNNCTAA 240
 GTGACCAGAC GAAAGAGAAG GGNGTAGAAA AGGNTGN 277

25 SEQ ID NO:4283
 SEQUENCE LENGTH:314
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05094

30 SEQUENCE DESCRIPTION:
 GATCCCCAGA CCTCACTTGC CTCTGCCTCC ATCTTGGCCC TGATTCAACC CTAAGATAAT 60
 AGCACAACAA AATCTNCAT AAAGATATTT TAATTCACCT GTNCCGTGCT ATATGGAGGA 120
 GGCAAGTCC ATTTAGTGAC ATTNCTNCCC ATAATGTGAG TGGGGAGGAT TGTGGGGAGG 180
 AGGGGCTTTG GGTTCCTGTG TTTGTGCATA TGAAGGGAGA TGGGGGTTAG GTGGAGGAGG 240
 35 AGAGCAGCGT GGTTAGCTAA GGTATTGCT TTTGTGGCA AATCTAATTA AATGACAGGA 300
 ATCTCTTCAC GAAA 314

40 SEQ ID NO:4284
 SEQUENCE LENGTH:489
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05095

45 SEQUENCE DESCRIPTION:
 GATCTTCATG GAGCTGAATG ACGCCTGGTC GGAGTTTGAG AACCAGGGCT CNCGGCCCT 60
 CTCTGAGGC CGCAGTGGTG GTGGCTGCGC ACACAGCTCC ACAGGTTGGG AGCCGTCGTG 120
 GGACCTGGGT CCCACCGTN AGGACCCCGT GGGCGACAGA GGTGTGGCCA GGGTGGGGCT 180
 CCGAGCCCCG GGTACCGCC CGCCAGCGT TCCAGGCACA TGAAGAGAAA GCATTCCAAA 240
 50 GCCTCTNATT GTTGTTCCT TTTTNCCTC CCGAAGAACA GCTGATTCAT GCTCCTCCCG 300
 CAATTNTNAC GTCTGTAATT TATTTGGTGT TTCGGGCGTN GTCTCTTGA GCCCCGGCAC 360
 GTTNGTGGGG CCCACGGTGT CTGGCGGTT CAATGGGGCC CTTGGTGTTT TGCACCGGAA 420

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CTTTTGTAAG TCAAGTNCCG TGGGTGGTN TTGTTACAAG AATTNAAAAC TAATTTTCC 480
CGNTTGAAA 489

5 SEQ ID NO:4285
SEQUENCE LENGTH:292
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05096
SEQUENCE DESCRIPTION:
GATCATATTT CCCCTTGGAC ACTTGGTTAG ACGCCTTCCA GGTCAGGATG CACATTTCTG 60
GATTGTGGTT CCATGCAGCC TTGGGGCATT ATGGGTCTT CCCCCACTTC CCCTCCAAGA 120
15 CCCTGTGTTT ATTTGGTGT CCTGGAAGCA GGTGCTACAA CATGTNAGGC ATTCGGGGAA 180
GCTGCACATG TGCCACACAG TGAAGTGGCC CCAGACGCAT AGACTGAGGT ATAAAGACAA 240
GTATGAATAT TACTCTCAAA ATCTTTGTAT AAATAAATAT TTTGGGGCA AA 292

SEQ ID NO:4286
20 SEQUENCE LENGTH:173
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05099
SEQUENCE DESCRIPTION:
25 GATCCAGTG GAGGCTGTAA CCCACCTGCC CCCGCACCAC CCCCNTGAC CCCTGTTACC 60
GCATTTGTGT GTATTAATGC TGAAGAATTA AATGTTTAA GAGTTTAAAT TTTGAAGGCG 120
TTTGCTATAT ACAGTTGTCC TGCATTATTA TAAAGAGTT TCAGGAAGTT AAA 173

30 SEQ ID NO:4287
SEQUENCE LENGTH:307
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS05100
SEQUENCE DESCRIPTION:
GATCAGAAAT GTGAAGCACA AATGCTGCTT CTCCCCTCC TGTCCCATG TCAGAGATGG 60
AGAAGAAAGC ACAGTGAGCT GTTACCAGT CCAGCGGTGA CCTCGGAGTC CTTGTAAACA 120
GTGTTTCAA TANTTCTGC CAATAAAACA GAATTNNGT TAGAACCTAT CTGCTGTCCC 180
40 TCAACTAGTG TCTGATAGCT GAGAATGTAA TTCGTTNTN TGTCTATTAG AAAATTAGGC 240
AGGCACCACA GACAGTAGCA ACATAAAGGA ACCTGCTTAG AAGNGGTTT NATGGGNNN 300
NNCNCNN 307

45 SEQ ID NO:4288
SEQUENCE LENGTH:244
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05102
50 SEQUENCE DESCRIPTION:
GATCCTTAAA TCTCCATTCT GTTGTGGTT GCCCCTCAA CCTCCCCTAC ACCCTTCCTA 60

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5 TTCTTTTCA TTCTTCTTGC AGTTCTGGGA GTAAAGCTCC CAGCATATTT AGATAATAGG 120
GCAGGGGAAG CACCCTCTTT CTTTCTAGAC TGGATTATGC TCACATGCTC CCTTGCCCTG 180
ACATTTTGT AAATNCTGTG CCCTTTGCTG TAGCTACACT TCAGATTAAA GTAGGAGAAA 240
GAAA 244

SEQ ID NO:4289
SEQUENCE LENGTH:69
10 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05103
SEQUENCE DESCRIPTION:
15 GATCAAAAGTT GGCAGGGGCT TGGCTGTGCC CTCAGATTCC GCACCAATAA AGCCTTCAAA 60
CTCCCTAAA 69

SEQ ID NO:4290
SEQUENCE LENGTH:341
20 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05104
SEQUENCE DESCRIPTION:
25 GATCTTTNAT CCTTTGTTGC AAAAGTGTGG ACACTTTTNA NAGCTTGGCA GATTNAACT 60
CCAGAAGCAC TTTATGAAAT GGTACACTGA CTAATCCAGA AGACATTTC AACAGTTTGC 120
CAGTGGTTCC TCACTACACT GGTACTGAAA GTNTAATTNN TTAGAGCCAA AAAACTGGAG 180
AAACAAATAT CCTGCCACCT CTAACAAGTA CATGAGTACT TGATTTTAAT GGTATAAGGC 240
AGAGCCTTTN NTTCTCTTC TTGATAGATG AGGCCATGGT GTAAATGGAA GTTTCAGAGA 300
30 GGACAAAATA AAACGGAATT CCATTTTTTT NTCAGTGTA A 341

SEQ ID NO:4291
SEQUENCE LENGTH:395
35 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05105
SEQUENCE DESCRIPTION:
40 GATCTTAGAG TCACTTTGGA ATAAGNTCTT ACATAAATAC CCCCAGCCTT TTGAGAACGG 60
GGCTTGTTAA AGGACGCGTA TGTAGGGCCC GTACCTACTG GCAGTTGGGT TCAGGGAAAT 120
GGGATTGACT TGGCCTTCAG GCTCCTTTGG TCATAATTTT AAAATATGGG AGTAGAAAAC 180
AACANAGNNT GGAATGGACT CTTAAACAA TGAAAGNGCA TTTATCGTTT GTCCCTTGAA 240
TGTAGAATTT TTTTTTGATT TCATAATTCT NCTGGTAAAT NTGNCAGTTA AAATGGTGCA 300
45 TTATGTATAT ATTANTATAA TTTAGANATT CCATTTTATA NTTNTTCTA TTCCAGGGTN 360
GCATAANGCA TTTNNANTT TNGGGGTTTT GGNTN 395

SEQ ID NO:4292
SEQUENCE LENGTH:349
50 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

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CLONE:HUMGS05106

SEQUENCE DESCRIPTION:

5 GATCATATTT TGCAGTTTTA GTAAAAGGGA AATATTGTTA TACATTTNTT AAATATACTT 60
 CCCCATGAN GTGAAAAGGT TAATTTTNC TANTGTTTTA AGTTGAAGTT ACTTCATGGA 120
 TGTCATACCC ATGANGTGCA TTTGGNTGAG ATAGCNGAAA TTTTTTTTA AAAAGTTTAA 180
 GTACCAAAGG TAGTCTAGTC TAGAACGATA AGTTAATACG TTTTGGCTTT NNTAATTTGT 240
 ACTGTAACAT CCTTATACTT TCTATTTNAA GTATATCTGT TTCTTAAGTA AACAACTTAG 300
 10 ATATTTTCCA CACCTTTTTT TTTTTTNC CNTGNNGGGT CCNGGGTNN 349

SEQ ID NO:4293

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05107

SEQUENCE DESCRIPTION:

20 GATCTGCCAT TTATTAGCTG TGGGATTTTG GGCAAATTTN TTGACTTTCT GTGCTTCANT 60
 TTTCTAGCT GTAAAATTGG AAGAGTTGTT ATGAAAATNC ACTGAAAGTA TATTTGTATA 120
 CATCATAGGA TAGTGTAGA ATATAGTATG GCTTTGAGAA ATGTTCATNA TTATNACTCC 180
 CAGAGGAGTT TTAGGTATTA AGTGATGCCA AATATAATTT NTNAATTGTA TAATAAAAT 240
 CTATATNCTT ACTGAAA 257

25 SEQ ID NO:4294

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS05108

SEQUENCE DESCRIPTION:

35 GATCACCATC CCAGTAACCT TCNAGTCGCG GGCCAGCTT GGGGGCCCAG AAGCTGCAAA 60
 ATCCGATGAG ACTGCCGCCA AGTAAAGCCT TAGCCCGGAT GCCCACCCT GCTGCCGCCA 120
 CTGGCTGTGC CTCNCCGCTN ACCTGTGTGT TCTTTNATA CATTTATCTT CTGTTTTNT 180
 CAAATAAAGT TCAAAGCAAC CACCTGNANA AA 212

40 SEQ ID NO:4295

SEQUENCE LENGTH:559

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05109

SEQUENCE DESCRIPTION:

45 GATCCAGTGG GGATGTTGTN ATGACTCAGT CTCCACTCTC CCTGCCCGTN ACCCTTGGAC 60
 AGCCGGCCTC CATCTCCTGC AGGTCTAGNC AAAGCCTCCT ATACAGGGAT GGAAACACGT 120
 ACTTGANTTG GTATCAGCAG AGGCCAGGCC AACCTCCAAG GCGCCTCATT TATGAGGTTT 180
 CTAAGCGGGA CTCTGGCGCC CCAGACAGAT TCAGCGGCAG TGGGTGAGCC ACTGATTCA 240
 CACTGACANT TAGCAGGGTG GAGGTTTGAC GATGTTGGGA TTTACTATTT GCATGCAAGG 300
 50 AACACACTGG NCTCAGACGT TCGGCCAAGG GGACCAAAGG TGNAAATTC GAACGAACCT 360
 GTGGCCTTGC ACCNATCTTT TTTTCATCTT TNCCGNCATC TTGGTTGNGC AAGTTTGNA 420

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ATNTTGGGAA CCTNGCCTCC TTTTGGGTGN TGCCTTGNCT TGAAATAACT TNNTTATTCC 480
CAAGAGGAGG GNCAAANTTC AAGTTGGGAA GGTGGTTTA ACCGGCNTC CAATTCNGGG 540
GNAANTCCCN TGGNGGGNN 559

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SEQ ID NO:4296
SEQUENCE LENGTH:50
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05110
SEQUENCE DESCRIPTION:
GATCTCTATG TATGTGTGTA TATAAATATA GTTTTTTATC TATATATAAA 50

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SEQ ID NO:4297
SEQUENCE LENGTH:548
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05111
SEQUENCE DESCRIPTION:
GATCAAACGA ACTGTGGCTG CACCATCTTT NTTCATCTTC CCGCCATCTG ATGAGCAGTT 60
GANATNTGGA ACTGCCTCTT TTGTNTGCCT GCTGAATAAN TTCTATCCCA GAGAGGCCAA 120
AGTACAGTGG AAGGTGGATA ACGCCCTCCA ATCGGGTAAC TCCCAGGAGA GTGTCAQAGA 180
GCAGGACAGC AAGGACAGCA CCTACAGCNT NAGCAGCACC CTGACGCTGA GCAAAGCAGA 240
CTACGAGANA CACAAAGTNT ACGNCTGCNA AGTCACCCAT CAGGGCCTGA GCTCGCCCGT 300
CACAAAGAGC TTCAACAGGG GAGAGTTTTA AGANGGGAGA AGTGCCCCCN ANCTGGNTCC 360
TCAGTTCAG CNTGACCCTC TCCNATCCTT TGGCCTGTGA CCCTTTTTTT TCCACAGGGG 420
GNCCTACCCN TTTTGGNGGT CCTCCAGCTC ATTTTTTTAA CCTTAACCCC GNTTNNTTCT 480
TCCTTTGGGG TTTAAATTAT TGNTTAATTT TTGGGGGNGG ATTGNTTTAA ATTAAAGGGA 540
ATNTTTTN 548

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SEQ ID NO:4298
SEQUENCE LENGTH:415
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05112
SEQUENCE DESCRIPTION:
GATCAGCGCC TGAGAAGTCG TCGGGCGATG TCCCCGCGCC GTGTCCCTCT CCAAGCNCCG 60
CCCCTGGGTG GGCTCGGTGG AGCAGACCCC GCGCAAGAGG CTGCGGTGAG CCAATTTAGA 120
GCCCAAAGAG CCCCAGGGA ACCTGCCGGG GCAGCGGACG TTGGAAGGGC GCTGGGCCTC 180
GGNTGGNACC GTTCATGTAG CAGCAACCGG CGGCGNNTGC CCAGNAGCAG CGTTCGGTTT 240
TTTTTTTAAA TTTTAAAAC TGTGCAATGT ATTAATAACG TTTTTTTATA TCTAAATGGT 300
ATTCTGCACG AGANGTACA CTGGGTCCCA AAGGTGTAAA AGCTTTTTTA GAGTCATTGT 360
ATTATAAAN TNNNTTTAAT CTNTTGGTTG AAATCTTNA GTGNANAGT ATTNN 415

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SEQ ID NO:4299
SEQUENCE LENGTH:156

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05113

SEQUENCE DESCRIPTION:

GATCTAATCT NAGATGTAAA CATTCAAATT NACCCTGTAG ACTNGGGTGA CAAGTTTCGN 60
TTGGTCATAG CTAGTACCTT GTATGANGAT GGTACCCCTGG ATGATGGTGA ATACAACCCC 120
ACTNATGATA GGCCTTCCAG GGCTGACCAG TTTNAN 156

SEQ ID NO:4300

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05114

SEQUENCE DESCRIPTION:

GATCTTACTT TCATCCAGTC TAATAGGTTT GGAGATTAAA CCTTTNCTCA ACTTGTGCTG 60
TTTATATAGC CAAGCTTCCG TCAATAAGGC TTCATTGTGA CTTAACAAA CATNATCTTC 120
CCACATACCA GGAACCTATTG GACATTTATT TTACATGGGA AAAATTATTT GGAATAATAA 180
AGCAGGNACT TTNCTGANG TTGCAATTTA TACTGTATGG CTNCTNNTTC ATGTTTCATC 240
TAGGTTTTAN GAAGTGAAGT ATANGTAAAT NTNGGTTCGT TAAATNGTGA TGGCGCTGGN 300
NATTACATGN 310

SEQ ID NO:4301

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05115

SEQUENCE DESCRIPTION:

GATCACTCAA GCACAGGATT TTAAGACCAG CCTGGGCAAC ACAGTGAGTG AGACCCTGTC 60
TCTACAAAAA AATTAAAAAT TAGCTGGATA CTGTGGTGTG TGCCTGTAGT CCCAGGTACT 120
TGGGGCATTG AGGCAAGAGG TTACTTTNAG CTCGGGTGTT TGAGGCTATG ATGAACTATG 180
ATTGTAGTGC TGTACTCCAG CCTGTGCAAA ANAGTAAAC CTTGTCTCAA A 231

SEQ ID NO:4302

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05116

SEQUENCE DESCRIPTION:

GATCGGGCCA CTGCACTCCA GCATGGGTGA AAAAGTGAGA CCCTACCTCA AA 52

SEQ ID NO:4303

SEQUENCE LENGTH:419

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05117

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SEQUENCE DESCRIPTION:

5 GATCACCAAC AGCCGTCCTC CCTGCGTCAT CCTGTGACTG CACAGGACTC TGGGTTCTCG 60
 CTCTGTTCCTG GGGTCCAAAC CTTGGTCTCC CTTTGGTCCT GCTGGGAGNT CCCCCTGCCT 120
 CTTTCCCCTA CTTAGCTCCT TAGCAAAGAG ACCCTGGCCT CCACTTTGCC CTTTGGGTAC 180
 AAAGAAGGAA TAGAAGATTC CGTGGCCTTG GGGGCAGGAG AGAGACACTC TCCATGAACA 240
 CTTCTCCAGC CACCTCATAC CCCCTTCCCA AGGGTAAGTG CCCACGAAAG CCCAGGTCCA 300
 CTCTTNGNCT CGGGTAATAC CTGTCTNGNT GCCACAAGA TTTTATTNA TTCTCCCCTT 360
 10 AACCCNAGGG CAATGTCANN NTATTTGGCA GTAAAAGTGG GGGTTACAAA ANCACTAAA 419

SEQ ID NO:4304

SEQUENCE LENGTH:75

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05118

SEQUENCE DESCRIPTION:

20 GATCTCCCTA GGGCCCCACC TGGACCATT TCCCTCCGTT TTATTTTGT AATTAAATTC 60
 TTCCAAATT GGAAA 75

SEQ ID NO:4305

SEQUENCE LENGTH:171

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05119

SEQUENCE DESCRIPTION:

30 GATCTCAGTT CACTGCAACC TCCGCCTCCN AGGTTCAAGT GATTCCNTTG TCCCAGCTAC 60
 TTGGGAGGCT GAGGCAGGAG AATCACATGA GCCTGGGAGA TGGAGGTTGC AGTGAGCCGA 120
 GATTGCACCA CTGCACTCCA GCCTGGGCAA CGAGCAAACC TGCNNCTCAA A 171

SEQ ID NO:4306

35 SEQUENCE LENGTH:309

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05120

SEQUENCE DESCRIPTION:

40 GATCCCTGGT GTGTTGTGTG GGCCTCTTTA ACGTTTGCCA CTGAGCCTTA ACCTCACTGT 60
 ACTTCACTGT ACTTCACAG CATTGGTGTT AACATTTTAA TCTTAGAAGA CCCTGACCCA 120
 CTGAGGGTTT GTTGTGAGAA TTGCTGAAGC CACGTAGAAG CACCTTGAAA TCTGTAAAAC 180
 CACAAGAAAG TACTTTATAA AAGGTATCCT TATTTGAAGT GGATAAATCT TGTAACCTGA 240
 45 AAAGTTGTGA TTTAGAAGAC AGGATTGTTT TTGAACATTA GGAATTAAG GCTATATCTG 300
 GTCCTTAAA 309

SEQ ID NO:4307

50 SEQUENCE LENGTH:587

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05121

SEQUENCE DESCRIPTION:

5 GATCTAAAAA CTCATCTTTG GGGTAAAGAG TTAAGTGTCC AAAGGTTGTC ACAGTTCATG 60
 AGGTCAGAGG GAGCTAGCCT GGCACCTGGA CTCTGCCCCT CCACAGCTGA CAGATTCCAA 120
 CAGAAGTGTA TTTAAATTCT CCAGTAGACA ATGCTGGGTA AGGGAGGGGN TAGNNCTGGG 180
 TTATTAAGAT ACAGGCTGCT GTATTTTACA TTGGTTGTGG GGGAAAGGGGA GCCTGGAGAA 240
 AACAAAGTCA CTATTCCTTT TTTTGAAACA GGAAAAAAA TTATTTTGTG TTCAGTAAAA 300
 10 ATGGGTAGGN GAATTCCAAT GTCCCTAGCC ACAAGGNCCT AGTTTCCACT GAGGAAGTGA 360
 ACCAGTGGGG AACTCAAAAT TTCCAGGNAA CATTGGGGGG GAGGGGGGAA ANTTGGGCTT 420
 TTCNCTTAAA TTTGGCAGNT NTTTNCAGT TGGGGNCNGG GNGGGGGGCT CCTGTTTTTT 480
 TTTTTTGGGG NTTGTGNTTA NTGNTNNTAT NGTACCGGNT TATTTTGGC CCCGGGGTTT 540
 15 TTCTTGGGNT TTNNAAGGG TTNCCCCAAA NTTTGGGTNA AAACNTN 587

SEQ ID NO:4308

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

20 TOPOLOGY:linear

CLONE:HUMGS05122

SEQUENCE DESCRIPTION:

25 GATCCCCCA TCTCTNCAGC ACTCTCTTGC TCCTCTCCCT TTTCATTTCC TTACTTTGTA 60
 TCTTNTCAGA TTAGAACATA TTTTNNTTGT CATGACAAAG GACTCTCCAA A 111

SEQ ID NO:4309

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS05123

SEQUENCE DESCRIPTION:

35 GATCTNAACT CCTTGGCTTC TTTACTTAGT TCAAGCCCCA GCCTAGGAAA GCCAGTTACA 60
 TAAAAGTTGG CTCAGGAGTC TTAGAGCTTT ACCTAAATAT GAGCCCAGAA AACGGAGGAT 120
 GGGGGTGGGG CGCCTTCCTG GAGGTGACAC TTGATGGGGG TGTGTTCTGG TTACTGTTCT 180
 AAGGCTGTGC CATCAGCTCC TTCCTCCCCT GTTCATTCTG CATTCTCTAG TCAGTTGGCT 240
 AAGAAAGTAC TCTTGCAACT AAAAAAATTA AGAAATTCAC TTCCCCTCTA GGAGGTGATG 300
 40 ATAGGGTTTT N 311

SEQ ID NO:4310

SEQUENCE LENGTH:366

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS05124

SEQUENCE DESCRIPTION:

50 GATCAGAGTT TCTGTGGAAT TCTGTTTGT AAATCAAAT AGCTGGTCTC TGAATTAAGG 60
 GGGAGACGAC CTCTCTAAG ANGAACAGGG TTCGCCCCAG TCCTCCTGCC TGGAGACAGT 120
 TGATGTGTCA TGCAGAGCTC TTACTTCTCC AGCAACACTC TTCAGTNCAT AATAAGCTTA 180
 ACTGATAAAC AGAATATNNA GAAAGGTGAG ACTTGGGCTT ACCATTGGGT TAAATCATA 240

55

GGGACCTAGG GCGAGGGTTC AGGGCTTCTN TGGAGCAGAT ATTGTCAAGT TCATGGCCTT 300
 AGGTAGCATG TATCTGGTCT TAACTCTGAT TGTAGCAAAA GTTCTGAGAG NAGCTGAGCC 360
 CTGTTN 366

SEQ ID NO:4311
 SEQUENCE LENGTH:240
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05127

SEQUENCE DESCRIPTION:
 GATCACGCTG ACCTGGCAGC GGGATGGGGA GGAACAGACC CNGGACACAG AGCTTGTGGA 60
 GACCAGGCCT GCAGGGGATG GAACCTTCCA GAAGTGGGCC GCTGTGGTGG TGCCTTCTGG 120
 AGAGGAACAG AGATACACAT GCCATGGTGC AGCACGAGGG GCTNCCCCAG CCCNTNATCC 180
 TGAGATGGGA GCAGTCTCCC CAGCCACCA TCCCCATCGT GGGCATCGTT GCTGGCCTTN 240

SEQ ID NO:4312
 SEQUENCE LENGTH:96
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05128

SEQUENCE DESCRIPTION:
 GATCTTTTCT CCATCATGTA CTTAGTATTT CCCATTAACC TACACACTGA TTTTNTGCT 60
 ACTCCTTGTA GAAACAAAAT TNTGGNTGGA CTCAGN 96

SEQ ID NO:4313
 SEQUENCE LENGTH:354
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05129

SEQUENCE DESCRIPTION:
 GATCTGCTGG TCCTTGCAGG CAAAGCTACA GCCAGANTGT CCGTTTGANA CTCCTAGCTC 60
 ATCTGTCACC GAGCTTNATC CGAATGTGCC ACGGAGCTTN CTCTCCACTT CCTCCGTGCA 120
 GCGGCCCTGC CACAGCCCTC CCTCGGCACA CTTTGACCCT TTGTAGGGTT GGNATTAGCA 180
 GGACTCGGCT ATTTAAAGCA CCAGTCTGGG GTCGCCTGGG CCCCTGCTGA CCCNTTCCTN 240
 CAGAGCAGCC AGCCCAGCCC GGGAAACAAGA CGGACTTNCT ATNCCTTCGG ACTCACAGCC 300
 TTTGAAGAGT CAAGCTNCAC TTNAAGCTCA CTCAGTAATA TCCTTTCAAT GNGN 354

SEQ ID NO:4314
 SEQUENCE LENGTH:161
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05130

SEQUENCE DESCRIPTION:
 GATCCGCCAC TTTCGGCCGG AGCTCGAGGA GCGGATGCAG CGGTTTGGCC AGCAGCATCA 60
 GGCCCGGCAG GCTGCCTCTT AGCCCAACCAC CCTGGCCTGC TGTCTGCGT CTATCCATGT 120

GGAATGCTGG ACAATAAAGC GAGTGCTGCC CACCCTCCAA A

161

SEQ ID NO:4315

SEQUENCE LENGTH:129

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05132

SEQUENCE DESCRIPTION:

GATCCTGGCT TTCCAGGGTG GGCAAGGGCA AGGAGCAGGC TTGGAGCCAG GGACCAGTGG 60
 GGGCTGTAGG GTAAGCCCCT GAGCCTGGGA CCTACATGTG GTTTGCGTAA TAAACATTT 120
 GTATTTAAA 129

SEQ ID NO:4316

SEQUENCE LENGTH:227

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05133

SEQUENCE DESCRIPTION:

GATCTTTGAG GTGAACAACT TGCCTGTGGA ATCGTGGCAG TAACTGTTTC CACTCACAGC 60
 CTGAAATCT CCTNTGTCCC AAACCCCAGG GGGCCCCAGC AGCTTCGAAC CTACACCTGA 120
 GGGCTACCAAG CAGGTGGCGC TNTGGCTTTG CACTGCAAAA ACTGGGGACC AGCCCNCTTC 180
 TNCCACAAAT AAAGCCCAAT AAAGCCTGAG AAGTGAGGAA AGCCAAA 227

SEQ ID NO:4317

SEQUENCE LENGTH:154

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05134

SEQUENCE DESCRIPTION:

GATCTCCGTG GATGAAGTGC GTCTGGACTC TTAGATTCAT AAAATATTCG AGGGTTTGGA 60
 AGTNACAGAC CCTCCCTCT CCTCAGTGCA CTTTGGCATT TNCACGGTGT CTCCCCGGA 120
 CAGCACAGCA ATAAATNGNG TGATTGCGTG GAAA 154

SEQ ID NO:4318

SEQUENCE LENGTH:181

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05135

SEQUENCE DESCRIPTION:

GATCAGGTTT GGNCTTCTCC CACTGAGCAT GACAAGCACT CGAAAGGCTA AATCAACCAG 60
 AAACATCGAA ACAAAAGCTC AGTACGATGC CAACTNTTAA GCCTGCAGGA NTCCTCCTGG 120
 GTTGTCCTCC CGGCACGNTC CACAGCTGGT NGACCCGGCA GTTCCTGGNT CCTTGTTTCA 180
 N 181

SEQ ID NO:4319

EP 0 679 716 A1

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05136

SEQUENCE DESCRIPTION:

GATCTGCCCT TGNTNGCCTC ATACCTCTGT GCTCCACACT GCGGCCAGGC CAGCTGAGTC 60
CCTCCATCCG TGGATGCTTT CCTGCAGCTA TGTGGTATGG GGGTCATTCC TGCCTCTTGG 120
CACCAGGTTG GGGGGCATGT GCTTGTGTTGG CACCAAAGTG ATGGAACCTT CAGGTGCTCT 180
CCGGGAGCCT GAACCTCCTG ACTGAGGAAC ATGGGCAGAA CATGTTTATT GCACAGAGTG 240
GGCGTGCGC ACAGGCGTGG CTGTACACGT GCTCTCAGCT CATCATCCTT TCCAGTAACT 300
TTAAAAAAC ATCCN 315

SEQ ID NO:4320

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05137

SEQUENCE DESCRIPTION:

GATCGNGNNA CTGGGGNGN GGCCCTAGGC ACTACCAGCA GCGCAGCTC ACCTTCGCCC 60
TCAGGGCTGA CGACCCCTG CTCAAGCTCT TGCAGGAGGC TCAGCAAAGC TGAATTAAT 120
CAGGCAGAAG AGCACAGATG TGTGGGATTG GGGGAGGAGT GGGGACAAGA TTTTNNATCT 180
CTAAGTGAAT TTTCTAAAAA TGTATTTTAT ACCGGCTTAT TCCTAGTATT GNATAAACTA 240
GCGGGNTCAN TCAAA 255

SEQ ID NO:4321

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05138

SEQUENCE DESCRIPTION:

GATCAAACAT GCATGGNTGG GTCCTCAGC AGACACACCC ACAGAAGGAC ACTAGCCTGT 60
GCACGCGCGC GTCNATCTAC ACACACACAC AAGAGTTCAT AATGTGGTGA TGGCCCTAAG 120
TTAAGCAAAA TGCTTCTGCA CAAAAAATC TCTGGTTTAC TTCAAATTAA CTCTATTTAA 180
ATAAAGTCTC TCTGACTTTT TGTGTCTTCA AA 212

SEQ ID NO:4322

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05139

SEQUENCE DESCRIPTION:

GATCGAGTTA TTATGATAAC TGTGGTAATT TGTTGTTATA AATAGCAGTA ACATAGGAAG 60
GTTTTGGTAA CTNCTGACAA GAAATTTNAT GTAGAGAGTT AATTTGAGC ACATTAATAA 120
GACTGTCCCA CTCAAA 136

EP 0 679 716 A1

5 SEQ ID NO:4323
 SEQUENCE LENGTH:228
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05140
 SEQUENCE DESCRIPTION:
 GATCTGCATT ATTCTNGGAN AGTATTCAAG TGGTATCTTG ACTATTAAAC TACGTATAGT 60
 GTTNNTGNAA TAGAAAGAAA ACAGCATTGG AATTGGATTC ATGTATCGTG GGATACAGGT 120
 GTTATTTCAG GTGATGTACT TGCATTATTT TCTTTAGCCA TAGTAACITTT TTGTCACAAT 180
 AACTAAGTAT TCAATTATAT ATAANGAGTG AAACATTAAA ATGGNAAA 228

15 SEQ ID NO:4324
 SEQUENCE LENGTH:297
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05141
 SEQUENCE DESCRIPTION:
 GATCCTGCCA CTGCACTCCA GGCTGGGCAA CAGAGTGAGA CCATGTCTCA AAAAATAAAA 60
 ATAAAATAAA ATAATATCAG GNTGCATACA TCAGAGGCTG TTCCTAGTGT AAAGGCACTT 120
 TGGAGGGAGA AGACTTTCAG AGTTAGGCAG ACCAACTAAG AGGTCAGCTG ANGCACCTAA 180
 CCAGTTGTAA GGAGGTGAAA GACAGCACCC CAAGANGAGA TGTGCAGGAN GGAGGAAAGA 240
 GGCTTGGTCA TAAAGGNTGG AGGAATTCCA AAGTGACACT GANACAGGCT GCGTTTN 297

30 SEQ ID NO:4325
 SEQUENCE LENGTH:90
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05142
 SEQUENCE DESCRIPTION:
 GATCGTTCTG CTGAGTATGT TAAGCTCTTT ATGACTGTTT TTGTAGTGGT ATAGAGTACT 60
 GCAGAATACA GTAAGCTGCT CTATTGTAAA 90

40 SEQ ID NO:4326
 SEQUENCE LENGTH:411
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05143
 SEQUENCE DESCRIPTION:
 GATCTGCTGC TGCCATTTTA ATCTTGCTCA TTAACCTTAC TCCTTTGAGA ATTCTTTAAC 60
 AATATTTAAA ATTGGTAACA AAAATAGTTT AGCCATAATT GTTAGCCAT GTGAGTTTCA 120
 GGTTGGTACA CGTTCAGACA GAACTGCTGT ATCACATTCC AATTTTGAAT AGCCAGTGAG 180
 CAATCAAGTG TAGAGAAATG ATAAATGGCC TAAGAAGGCA TACAGTGGCA TAAACGATGC 240
 TCTTCCTAGT AGCTTAATAG GCCACAAGCT AGTTTCTGTT GCACTCTGAA ATAAATATG 300
 CTTTAAAAAT GTAGGGANCA GTGCTTAGAA AAGCAAAANC TAGGTGTGTC ATTGANATAA 360
 TAGGCATAAN ACTTAAATGT TCCATAGGCC ACTATTGGA AGGGGGCCTT N 411

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EP 0 679 716 A1

5 SEQ ID NO:4327
SEQUENCE LENGTH:99
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05144
SEQUENCE DESCRIPTION:
GATCTACACA TTTTATAGT CATTTAAAT TGTATGACTC TGTCAAATNA TTAAAGTAAT 60
10 TTTGGTGGAT TTTTAAAAAT AAAAAAATAA AAATAGAAA 99

15 SEQ ID NO:4328
SEQUENCE LENGTH:80
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05145
SEQUENCE DESCRIPTION:
GATCAGTTTT TATAGCATCT ATGGACATAG AAAATCAGTC ACTGAAAAAA ATAAACACAG 60
20 CTTTCAATGT CTCACTCAAA 80

25 SEQ ID NO:4329
SEQUENCE LENGTH:263
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05147
SEQUENCE DESCRIPTION:
GATCCAGAAT CACCAAGACC TCCAGCCCTG GATGATGCCT TTTCCATCCT GGACTTATTC 60
30 CTGGGACGTT GGTTCGGTC CCGGTAGCCT TGTTAACCCT CAGAGGCCCT CAAGTCCTTT 120
CCACCTNTCA CCCATTGCCC ACCATTAANA AGCTTAGCTG NNTCTTGCCA CCTCAGGGGC 180
TTGGATATGT GGAATAGTGA ACTGGGNCCA TGTCAGTTTG TCACTNACCC AAAGTGACCA 240
ATAAAACCTN NATTTATGNT AAA 263

35 SEQ ID NO:4330
SEQUENCE LENGTH:111
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
40 CLONE:HUMGS05148
SEQUENCE DESCRIPTION:
GATCCTAANN CTGACAAGAT TCAAAGNACT AAATTTAATT CAGTCATNAA CACTACCAAT 60
TACCGTTTAT NGGTAGACAT CTTTGGAAT TTCCACAAGA GCAAGCTAGG N 111

45 SEQ ID NO:4331
SEQUENCE LENGTH:264
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
50 CLONE:HUMGS05149

55

SEQUENCE DESCRIPTION:

GATCTGACCT GTTTATTGTT GGCCTTGT GAAAACGAGC TTTCTTTCCC ATGATAGTGC 60
 TTCGTTTTTG AAGTGTGAA GCTGTGCTCC CCTNAAATCG TGGCAGGAGA GATTAAGGTA 120
 ATTACAACAC TCAGTTCTAT GTCTTACAAG CACTTTGTCT TGTCTCTGCA AGAAAATTCG 180
 ATNCCNGTCA TNTCCATAA AATACAGNCA TTTTACCANC ATANTATGCT TTGATTGANG 240
 CAGCANTATG CTTTTGGGCA GTAN 264

SEQ ID NO:4332

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05150

SEQUENCE DESCRIPTION:

GATCCTCCCG CCTCAGCCTC CCAAGTAGCT GGNATTATAG GTGTGTGCCA CTGTGCCAAG 60
 CTAATTTTTT AATTTTNGT AGAGATGNGA TTNACCATG TNACTCAGGC TGGTCTCAA 120
 CTCCAGCCT CAAGCNATGC TCCACCTCC ACCTCCCAA GTGCTGGGAT TACAGGCGTG 180
 AGCACCATAC CTGGCGCATG CATATTTTN AAGAGTACCC ACTGGNGTCT AATATATAGC 240
 CTGGGNTACC TGGGATGAN 259

SEQ ID NO:4333

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05151

SEQUENCE DESCRIPTION:

GATCTAACCA ATTTGAATAT GACTTCCTAC TCCAACGTAT CACCAAAACA CTGAAAAGCA 60
 ATAGCTGGTT TGGTTGTTAG AAATGGTGTA ATTAATGGTT TTNGTTAGTT CACTTCAGCT 120
 TAATAAGTAT TTATNGCATA TTTGCTATGT CCTCAGTGTA CCACTACTTA GAGATATGTA 180
 TCATAAAAT AAAATCTGTA AACCATAGGT AATGATTATA TAAAATACAT AATATTTTC 240
 AATTTTGAAA 250

SEQ ID NO:4334

SEQUENCE LENGTH:260

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05152

SEQUENCE DESCRIPTION:

GATCGCATTT ATATAACATT CTTGAGGTGA CAAAATTATT GAAATGAAGA ACAGATTAAT 60
 GGTGCCAGG GATAGGACT GGAGGGGTG TGGGTATGT ATGACTATAA AGGGATGACG 120
 CAAGGAGTTC CTTTGTGCTG ATGGAACAGT TCTATATGAT TATGATGATT ACGATGTTGA 180
 TTATAACATT TGATTATGAG GTTAAGCACA TGAGTCTTGA CCTGTNCTGA AGTTGTATGG 240
 ACCTACATAC ACACAAATGN 260

SEQ ID NO:4335

SEQUENCE LENGTH:261

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05153

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SEQUENCE DESCRIPTION:

10

GATCAAGACG AGCCTGCACC GCCTGAAGCC CGACACGGTG CCAGCGCCCT GCTGCGTGCC 60
CGCCAGCTAC AATCCCATGG TGCTCATTCA AAAGACCGAC ACCGGGGTGT CGCTCCAGAC 120
CTATGATGAC TTGTTAGCCA AAGACTGCCA CTGCATATGA GCAGTCCTGG TCCTTCCACT 180
GTGCACCTGC GCGGGGGAGG CGACCTCAGT TGTCTGCCC TGTGGAATGG GCTCAAGGTT 240
CCTGAGACAC CCGATTNCTG N 261

SEQ ID NO:4336

SEQUENCE LENGTH:145

15

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05155

SEQUENCE DESCRIPTION:

20

GATCCTCAGT AAACCTGAG AAATAATGAA TGTGTTTGT TTTAAATGG TAAATNTGA 60
GGTATTATGT TATGTGGCAA TAGATAGCTA ATATATAACT NATTTGANTC AAACAATATG 120
TTAANTTAAA GCNCAGAAGA NTAAA 145

SEQ ID NO:4337

25

SEQUENCE LENGTH:264

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05157

30

SEQUENCE DESCRIPTION:

35

GATCTAAGGA AAGAAATGGA GCAACTAGTG CTTGACAAAA AGCAAGAGGA GACAGCCGTA 60
CTGGAAGAGG ATTCTGCAGA TTGGGAAAAA GAACTGCAGC AGGAACTTCA AGAATATGAA 120
GTGGTGACAG AATCTGAAAA ACGAGATGNN AACTGGGATA AGGAAATAGA GAAAAATGCTT 180
CAAGAGGAAA ATTAGCTGTT CCTGAAATAG AAGAATAATC CTTAACAGTC TGCAAATGTA 240
CATTAAATTC TAGATGTTGA CAAA 264

SEQ ID NO:4338

40

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05158

SEQUENCE DESCRIPTION:

45

GATCGGGGCG GGGAAACAGC NGGAAGANGG NCGCACCCGG TCTGACTACA ACANCCAGAA 60
AGAGTCCACT CGGCACGTGG TCCNGCGCGT GAGGGGGGGT GTCTAAGTN 109

SEQ ID NO:4339

50

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

EP 0 679 716 A1

CLONE:HUMGS05159

SEQUENCE DESCRIPTION:

5 GATCAGTATA CAGTGTACGT AAACACACC ATCCTCAAAC CCCGAAAGC AAAGCAAATC 60
AGGAAGAAAA GTGGAGGTTA GCAACACACC TNTGGCCCCA AAGNACAACC ATCTTGTTAA 120
CTATTGATTC CAGTGACCTG ACTCCCTGCA AGTCATCGNC TGTAACATTT GTAATAAAGG 180
TCTTCTGNCA TGAAG 195

10 SEQ ID NO:4340

SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05160

15 SEQUENCE DESCRIPTION:

GATCTAATAT TCAGGAATTT TTCTCCTAAA GACACCCAGT AAAAATATCA CAAA 54

20 SEQ ID NO:4341

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05161

25 SEQUENCE DESCRIPTION:

GATCACTGTG TAAACTAAG TNTCTCTAAA TGTAATGCAT CGATTTAGTG TCTGGAACAT 60
AATAAATATT TGCTCTCATG ATTGCTAAA 89

30 SEQ ID NO:4342

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05162

35 SEQUENCE DESCRIPTION:

GATCTACATC CCCATCCACC TATACGGACA TCTTTTCCGT TGTGGTTTGA GAATGTTCCCT 60
ATAATAAACC CCTCTGCTTT GTTCTTAAA 89

40 SEQ ID NO:4343

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05163

45 SEQUENCE DESCRIPTION:

GATCGTCTTG TATGGTGAAT TTTCTAGGAG CGATGATGTA CTGTAATTTT ATTTTAATGT 60
ATTNNGATT ATGATTATNT ATTAGTTGNN TTAAATGCT TN 102

50 SEQ ID NO:4344

SEQUENCE LENGTH:248

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS05164

SEQUENCE DESCRIPTION:

5 GATCAATTNT GCANCANACA NCAATCTTAA CCATTTCCAG AAAC TACTAG TTATATTAGG 60
 CACGTTTTAA AAAC TTAAC AAAATAAAGG CCATCCCAA CCCTGGGCTG TTGTCGGGTT 120
 ATTTTG CAGC AGGGTTGTGT TCAAAA NCTT CCTTTGACTC CCTGAGACTT TATCTNCTNC 180
 TTGCAGAGTA AGATGGAAG CCANTCAGTG TTGCNGTAA TGTAATACAG NGTAGTGCCA 240
 10 TTCNGGNN 248

SEQ ID NO:4345

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

15

TOPOLOGY:linear

CLONE:HUMGS05165

SEQUENCE DESCRIPTION:

20 GATCCAAACT TCTACAGCAA AAAC T TACTT CTTT TAGGAA AGACATACTT GAAACTACAC 60
 AACAAAAAGC TTGCTGCTTT CTGGCTAATG AAAGCCAAGG ACTATCCAGC ACACACAGAG 120
 GAGGATAAAC AGATACAGAC AGAAGCTGCT CAGTTGCTTA CAAGTTTCAG TGAGAAGANT 180
 TGAGAACTTT TCAGAGAAGA TTTATGAAAT AGCTAATAAA CATTGCCTTT TCTTTTAAA 239

25

SEQ ID NO:4346

SEQUENCE LENGTH:223

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05166

30

SEQUENCE DESCRIPTION:

35 GATCAAAAAA TGTCTCCGCT CAGGGATTTA TGGTGGATTA TTGCAGACAN TGCTAAAAAT 60
 ATAGAGCACA AGACAAGTTT ACTAAATTAA AATTTTATTT TTTGAGAAAC TGTATTGTGT 120
 ATAAATTATC AAGATTGTGA GGCITTCCTT TNGTAGAAAT AATTGTTTTA TGTGCCAGAG 180
 AATTTCAATT TNGTTTTCAA CAATAAAGCA TTGATAAGAG AAA 223

SEQ ID NO:4347

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

40

TOPOLOGY:linear

CLONE:HUMGS05168

SEQUENCE DESCRIPTION:

45 GATCATTGT TTATAAAAAT GTGTCCTATT ACACAGTGAG TTAAC TCTCA AA 52

SEQ ID NO:4348

SEQUENCE LENGTH:334

SEQUENCE TYPE:nucleic acid

50

TOPOLOGY:linear

CLONE:HUMGS05169

SEQUENCE DESCRIPTION:

55

EP 0 679 716 A1

5 GATCCGAGCG ACCATGGTGG CCCGGGTGTG GTCGCTGATG AGGTTCTCTCA TNAAGGGAAG 60
TGTGGCTGGG GGC GCCGTCT ACCTGGTGTA CGACCAGGAG CTGCTGGGGC CCAGCGACAA 120
GAGCCAGGCA GCCCTACAGA AGGCTGGGGA GGTGGTCCCC CCNGCCATGT ACCAGTTCAG 180
CCAGTACGTG TGT CAGCAGA CAGGCCTGCA GATACCCAG CTCCAGCCC CTNCAAAGAT 240
TTTACTTTCC NATCCGTGAC TCCTGGAATG CAGGNATCAT GGACGGTTGA TGTCAGNTCT 300
NNTNGGTGGC CCCTTTCAA GGGNCNGGTG AGTN 334

10 SEQ ID NO:4349
SEQUENCE LENGTH:146
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05170
15 SEQUENCE DESCRIPTION:
GATCCATCAA ATTGAACAAT CTGTTGTAAT TTAAAATTTT GGCCACTTTT TTCAGATTTT 60
ACATCATTCT TGCTGAACCT CAACTGAAA TTGTTTTTTT TTNCITTTTG GATGTGAAGG 120
TGANCATTCC TGATNNNGGC CTCNN 146

20 SEQ ID NO:4350
SEQUENCE LENGTH:257
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS05172
SEQUENCE DESCRIPTION:
GATCTCAAGC CTCTTCTGAA CCCCAGGCTT TCTTGAGTCT CCATATGAGC ATTTGCCTCT 60
GTGGGCACAA CTTCAAGTGT CCTTTGTGAG GAAATGTGCA TCTCTGGNTG GTGAACCTCC 120
30 ATCCCTCAGA GAGAAATAGA AGCACAAATT TGAAACAAGC TGTCTGTCTG NGNNNNNNCT 180
TTATGTCTTG GAAACTTTAT TTATCCATCC AAGCTTTNTT TTTTTTTAG CCTTTNNGGG 240
CAGGNAACCA TCCAGGN 257

35 SEQ ID NO:4351
SEQUENCE LENGTH:73
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05173
40 SEQUENCE DESCRIPTION:
GATCTGTCTA CTGAGAAGAC CCAAATCTTG GTTCTAAAT GCCATTCTTC AATAAAAGGA 60
ATTGGGTTTC AAA 73

45 SEQ ID NO:4352
SEQUENCE LENGTH:73
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05174
50 SEQUENCE DESCRIPTION:
GATCTCCTTC TCCNTCCTGT CCTGTCCTTG CCCCTCAGGA CTGCTGAAAA ATAAATCCTT 60

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TAAAATAGTG AAA

73

SEQ ID NO:4353

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05176

SEQUENCE DESCRIPTION:

GATCCAAGCA GGGGGATGAA AAACCTCAGCA GAGAAATTCG AGACCATTTT CCAAGACTNT 60
 CCCCTTCTCC TCAGGACCCC CTGGCTCAGT NCTTGAAAAA CGGTGTCATA TTTAGTCAGA 120
 GGCCCCACCC CCAGGAAGCA TGGATGGGGA TGAAGGCACA GCGCTCTCCA ACCTCAGAGG 180
 CCCTTTGTGG GGTCAAGACA CAGAGTGGGN AGANGAGACT GATGCAGGCC TACCAGTNCC 240
 TGGCTTTTGT TCTGGGGCTG GAATAAAGAG GTGNCTTCAG CTGTTTGGNN CGAGAGGCAG 300
 GGTAAA 306

SEQ ID NO:4354

SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05177

SEQUENCE DESCRIPTION:

GATCAACTGG AACCTCTGTA TCATGCGGCT GAATTCCTT TTTCTTTAC TCAATAAAAG 60
 CTACATCAGA CTGAAA 76

SEQ ID NO:4355

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05178

SEQUENCE DESCRIPTION:

GATCAGGCTT TTAGGACCTA GGAAACAAAT AAAGAGGAAT TTGTTGCTGA AA 52

SEQ ID NO:4356

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05180

SEQUENCE DESCRIPTION:

GATCCTTATT CTAGCTACAA GTCAAAGATA ACTCCTGGTC CAGACAAAAC ACCTGGCCTA 60
 TCACAAGCTG ACTAAAAATC TGCACITTGG GCCAGCGCAG GCAACAGTAA CTNTGACAGG 120
 TTCAAATTAG ACCTCACACT TTCTACTCAT ATTCTAGTCA CTGGACCCAT CTGANTCAGT 180
 AATCCCTNCT GCCCGGTCCT GGAGTAACTT CTTAGAGATA TTATAGCAAG TGGCAAAANT 240
 AAAAGAGGGA TTGCTANGA NTATCAAA 268

SEQ ID NO:4357

SEQUENCE LENGTH:114
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05181
 SEQUENCE DESCRIPTION:
 GATCTCAAAT ATAAATTGA GATTATACAT GTAGTTATGT ATAGNGNCAT GTAGTTACAC 60
 ATAGTTTTGT ATTTNCCTGT TTTTTTCTCA TATGAGCATT TNCITTATTAA NGTN 114

SEQ ID NO:4358
 SEQUENCE LENGTH:179
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05182
 SEQUENCE DESCRIPTION:
 GATCTACACG TGTTGTTTTG TTTTNCCTTT ATTGATGCAC GNATGCTTTT GAACAGTAGA 60
 GNGAAATGCT AGACATGGAG AATCTGCTCT GTTGTCTCTN TATACATTTC TGTAGTTAAC 120
 AGAACACTGT AATGTGCCTT GGAGCTTAGT AACTNGTAAT AAATTCAATN GATATTAAA 179

SEQ ID NO:4359
 SEQUENCE LENGTH:85
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05183
 SEQUENCE DESCRIPTION:
 GATCCTAAAT CCTATGTAGG CTNNGGTTAT TAGTGTATAT TTGTGTCTTA AAACAATTTT 60
 GAAAGTNAAA AAAATATTTT TTAAG 85

SEQ ID NO:4360
 SEQUENCE LENGTH:194
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05184
 SEQUENCE DESCRIPTION:
 GATCTNATTT TGAGATTAAA AAAAATACTT CTAGCTTTAG CCAGGTGTGC ATGTNGCTGC 60
 CATTTTGCAT TTTTGAATCA TCTTGTGTAA TTGTCACCAT GAAAGTGTTA CTCAGAATNG 120
 TCATAGATTT NNTNTTCTTT GTGCAAAAAC ATGGAAAATT GTCAGTACT TTGTTTTGAG 180
 GTTCCCCCGG NNNN 194

SEQ ID NO:4361
 SEQUENCE LENGTH:216
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05185
 SEQUENCE DESCRIPTION:
 GATCTGCTGT ATGTTACAGT TATGTAATTT GACTTGTTTC AAAATTATTA AAGTTTTAAG 60

EP 0 679 716 A1

TGTATGCATT CTAAGTGGTCA ATAAGTAAAT ATATTCAGGC TCTGAATGTA GACAGATAAA 120
TATATAAATA TAGAAAGTAC ATTTGTTAGA ATACAAACAA GAATAAAAAT TGAGTACAGA 180
NTGAAAACCT TATTAAATTT TATCACTCCA TATAAA 216

SEQ ID NO:4362

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05186

SEQUENCE DESCRIPTION:

GATCAAACTC AAGCTCACAC CTGTACCTGA TGGGAATGAA CATAATGTGA AGAAACTTAT 60
TTCCAGTGT AAACGCAGTT GTACAGAAAA AAAATGTTTT GGTATAAAT CTGGGTTTTT 120
AAAACCGCT TTNTTCTATA TATAAATNAT GCTGCTATTA CAGATTTAAC ATTTNCTGTT 180
AAAGGAAAGT CTACATTTTC TGCCTGTNCA GAACTGTTTA ATAGCAGTNN CTCTTGAGTG 240
TATTTNCCTT GGTATGTTTT TNAACCTATT TTCCTTNAAG CCGAAAAATAT TGCCAATTGG 300
ATANGGTTAG CCTTANNAAG TNNAATAAAN NAN 333

SEQ ID NO:4363

SEQUENCE LENGTH:185

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05187

SEQUENCE DESCRIPTION:

GATCAGCCAG TCTCTTTCAT CATCAAGCAG ACATACTCAA GGTACCAACA CAGCAAAGGC 60
ACAAAATGTC TCTATATCAG TATTTTTCAT GGTATATGTG AGACCCATTA GTGAGGCATG 120
AAATCAATTC TGTGAGTCAC AATGAACATT TGTCTAAAAA ACATAATAAA NTGTAAAAATA 180
CCAAA 185

SEQ ID NO:4364

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05188

SEQUENCE DESCRIPTION:

GATCCTTTCC CATTTATTCT GGAAGATGT TTTTCAAAC CAGAGACAAG GACTTTGGTT 60
TTNTAAGAC AAACGATGAT ATGAAGGCCT TTTGTAAGAA AAAATAAA 108

SEQ ID NO:4365

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05190

SEQUENCE DESCRIPTION:

GATCATTTGG CTCTTTTTT CCTTCCAGAA GAGTNGCATC AACAAAGTTA ATTGTATTTA 60
TGTATGTAAA TAGATTTNAA NCTTCATTAT AAAATATTGT GAATGCCTAT AACTTGTTN 120

NCAATGTGNT TGTGTGTGTT TCTAAGGACT TTTTCTTNGG NTTGCTAAAT ACTGTAGGGT 180
TGAAAAATGCT TCTTTCTACT N 201

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SEQ ID NO:4366
SEQUENCE LENGTH:118
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05191

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SEQUENCE DESCRIPTION:
GATCCTTCAT GGACANTATT CTAAGTATA CGTAGACACT TACTTGAAAA TTTTGGACA 60
TTATATTAAA TGAGTGCTAT CTGTGAAATT GGTATATTA GGTGGCTNNN NCTAATGN 118

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SEQ ID NO:4367
SEQUENCE LENGTH:277
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05192

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SEQUENCE DESCRIPTION:
GATCTGAGGT CTAAGCTAG GAGAGACTGA GAATTTTAAT CAGTTGGGC ATATAGTTTG 60
GACTGAATCA CATCTGTAGT ACTTAGCCAA AGACAATTG GAGGAGAATA TCAGCCTTCT 120
GGAAGTAGCT ACTTCCTGNT CAATGTAAAG TGTCGCAGAT ATTCAATAAA ATGGCAACCT 180
GTTATAATT TTTTGAATAT CAGCCTTCTG GNAGTAGCNA CTTCTGTAN CAAANGTAAA 240
GNGTCGCAGN TATTCAATAA AATGGCAACC TGTTTTN 277

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SEQ ID NO:4368
SEQUENCE LENGTH:209
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05194

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SEQUENCE DESCRIPTION:
GATCTCTTGA CAANTGTGTA TGTTAACTTT TTAGCACATG TTTTGTACTT AGTACACGAG 60
AAAACCCAGC TTTCATCTTT TGTCTGTATG AGGTCAATAT TGATGTCACT GAATTAATTA 120
CAGTGTCTTA TAGAAAATGC CATTAAATAA TTATATGAAC TACTATACAT TATGTATATT 180
AATTAATAACA TCTTAATCCA GAAATCAAA 209

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SEQ ID NO:4369
SEQUENCE LENGTH:58
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05195

SEQUENCE DESCRIPTION:
GATCGTGTG GAGACTNTNA CACAGTTTAA ACACATCAAT AAATACTTTA ACTTCAAA 58

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SEQ ID NO:4370
SEQUENCE LENGTH:108

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EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05196

5 SEQUENCE DESCRIPTION:
 GATCGAGGTA GTAAAGGCCA TCCACATTTT AAAGGGTTAT TTGTCTNTNN TATAATNCGT 60
 TTGCTTTCAG AAAATGTTTT AGGGTAAATN CATAAGACTA TGCAATAN 108

10 SEQ ID NO:4371
 SEQUENCE LENGTH:190
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05197

15 SEQUENCE DESCRIPTION:
 GATCAAACAG GGACACAAAA GCAAGTATCA TGGGAGGAAC TTGAAATCTC TNGGGACAGC 60
 AGAAGCTGAC TTCAACTCTN ATAATTGTGG CATCCATAAA TTGCAAATAT AGCCCTGAAT 120
 AGATACACAC AAATGTCTAT AATGAAGGCC CAGCAGAATG GAATGTGTGA CCATCTTCAG 180
 GAAGAAAATN 190

20 SEQ ID NO:4372
 SEQUENCE LENGTH:241
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05198

25 SEQUENCE DESCRIPTION:
 GATCAATCCC TAGTAAAAGC CCTGGACACC TAGGCATGGG TGAGCTACTN TGGTTGGTAA 60
 TACTCTGTGC ACACATCATT GTAGCCACAC ATCATTGCTG GGAGAATTAA GCATTATCCT 120
 GAAGACTCTG CCAGGAGAGG ATAATTGGAA GTTCTCTTGG ACCTTACCTT ATGTGCCTTT 180
 NTTTCATTGCT GATTTTAATC TGTATCCTTT CACTGTAATA AACTGTAAC TATGNGTGCAA 240
 A 241

35 SEQ ID NO:4373
 SEQUENCE LENGTH:51
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05199

40 SEQUENCE DESCRIPTION:
 GATCGTTCAT TGCCTTTCCA GGGTTATTTA GTAAAGTTTG TTGAAAACAA A 51

45 SEQ ID NO:4374
 SEQUENCE LENGTH:153
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05200

50 SEQUENCE DESCRIPTION:
 GATCTCAGGT GATTCACCCG CTTCTGCCTC CCAAAGTGCT AGGATTACAG ACATGAGCCA 60

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CCGCACCTGG CCATACAATT GCCTTCTATA TGTTTTTNAT TTAATATGAC ATTTGTATTT 120
 CCCCATGTTA TAAAAAATT CTNTATAAGC AAA 153

5 SEQ ID NO:4375
 SEQUENCE LENGTH:103
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05201

10 SEQUENCE DESCRIPTION:
 GATCACCCCA CCCTGTGAAG AGGCAGTTGG TGCTGGCAGT AAGCTGGTTT CCTCCTCTCC 60
 AGGGTTTTCC TAGTAATAAA GGTGTTNCTG TTGANGCCGT AAA 103

15 SEQ ID NO:4376
 SEQUENCE LENGTH:390
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05203

20 SEQUENCE DESCRIPTION:
 GATCACATTC ATTCCATAGG TAGCTTTACG TGTGGCTACA ACAAATTTTA CTAGCTTTTT 60
 CATTGTCTTT CCATGAAACG ANNTGANGAA AATGATTTTC CCTTTCAGG TTGCACACAG 120
 TTTTGTTTAT GCATTTCTT AAANTTAATT GTAGTCTCNA GGATACAAAC CATAGFAGGC 180
 25 AATACAATTT TAGAATGTAA TATATAGAGG TATATTTAGC CTCTTTTAGA AGTCAGTGGA 240
 TTGAATGTCT TTTTATTTTA NNTTTTACAT TCATTAAGGT GCCTCGTTTT TGACTTTGTC 300
 CATTACATT TATCCATATG CCTTTGCAAT ANCTAGNTTG GTGNAAAGCT AACCAAGTGT 360
 TGTAAACCANT AATCCNTTGT TTNGNGGTGN 390

30 SEQ ID NO:4377
 SEQUENCE LENGTH:144
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05204

35 SEQUENCE DESCRIPTION:
 GATCACATGC AGGACTCTTT CTTAATGCAG CCTGAGACAA ATCTTGCAAT ATGAAGAGAT 60
 GATTTCAGG TTTTATTGAA TAAATGAATT GTAATTTTTA CTTGAAATTA TCTTATTTAG 120
 40 TATAATAAAT ATTACAATAT TAAA 144

45 SEQ ID NO:4378
 SEQUENCE LENGTH:386
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05205

50 SEQUENCE DESCRIPTION:
 GATCCCACAG CGAAACACTG GCCACTGGCT ACCAGTATTN CTTCCAGAG CTAGGGGCTG 60
 CCTTAAAGGA AATTGTAGCC TAAGTAGGTC GTGGCAAGGG CCTGAGGCCT GTTCCTCACA 120
 GGCTTCAGG TTAGGCACTG TGAATAGGCT CAGCTCCTCT AGAGAGCTGA AGCCATCTGG 180

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EP 0 679 716 A1

5 TTCTTAGATT CCTCTCCCAG TCCTCTTTCC CATTGTTCTG TTGCTCCACC TTATTGTCCTC 240
 AAGGCCGTAA TCTCATCAGG TTGGGACATT AATCTTTTCA ACTCCTTTGT AAAGATTTC 300
 CAGTTTGGTT TCTCTACATG TNCTGCAGCT GGCCNCAATT CTCCTTTNAC GTTGTGTAGA 360
 GAATGNTCTG CAGTTTTAGG GCAAGN 386

10 SEQ ID NO:4379
 SEQUENCE LENGTH:174
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05206
 SEQUENCE DESCRIPTION:
 15 GATCTAAACG AAAAATAGTT TCTTGTTTAA ATTCACATAA GGCAATNAGA TATGGAAAGA 60
 TGACAAGATA CGTATAAACA TTGGTTTGCA TTTTATIAAA TNATTCTAAT GCAAATCTTG 120
 TATAAGAAC CCATGATGTT TTGTAACTTT CTAATTAAAA TGTCAAAAT GAAA 174

20 SEQ ID NO:4380
 SEQUENCE LENGTH:207
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05207
 SEQUENCE DESCRIPTION:
 25 GATCTTGGTC AATAACTGGG AGATGGACAA ACTAGAGATG GAAGATGCAG TCACATTTT 60
 GAAGACTAAA ATCTATTCAG TAGAAGCTCT TCCTGTTGCT GCTGTAAATG TGCAAAGCAC 120
 ACAATAAAGT GAAAATCAAC CTTTTCATAT TAGGAGACAT GCATTTGTAA AAATTAATAA 180
 AGATGACAAG TCAGTTGTCA ATGGAAA 207

30 SEQ ID NO:4381
 SEQUENCE LENGTH:189
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 35 CLONE:HUMGS05208
 SEQUENCE DESCRIPTION:
 GATCAGCACC TTGGCCGTGA TTCCCAAGGT CCCAGCCAAA GCAAAGGGCC AGTTGTTTCA 60
 GTTTAAACAG ACATGTCTTT AGTCTAATAA AATTAGTTAA CTGCCAGTAA AGTTATTTGT 120
 40 TAGCTTTGNT GAAAGCTATG NNGGTATCTT TCCCTAATCA TCAAAGTAAA TAAAAANTCA 180
 TTTCTNAAA 189

45 SEQ ID NO:4382
 SEQUENCE LENGTH:502
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05209
 SEQUENCE DESCRIPTION:
 50 GATCTGTCTT TTTTAAGTTG ATTCGGGAGT GGCATTCTTT TATACCCAAA GACTGTAGTG 60
 CATCTTGAAG AGCTCAAAGC ACATGACCGC ACAAATGCTT ACAGGGTTTC CTCCCGAGTA 120

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ATCCAATCTC ACTCCCCTTG TAAGGGAATT CTGGGGCAGC TATGGTTTGA GTATGCAGTT 180
 TGCATCGTGT TTCTACCTTT AGTACCTTGC CACTCTTTTA AAACGCTGCT GTCATTTCCC 240
 ATTTCTTAGT ACTAATGATT CTTTGATTCT CCCTCTATTA TGTCTTAATT CACTTTCCTT 300
 NCCTAAATTT GGTGATTGG CATATCAAAT TCTGGTAAAA TNGTTTTNGG TAAANCATAT 360
 TTACCCNCAC TTGGGGTAAA TCCCAATTCC TGGNTAGGGN CTTTAAAAA NGGGTTTTTN 420
 NTTAATNGGG NNAATCCAAT TATTAAAAAN GGGGGGNCCN TTTTNAAG GGNGGAANAA 480
 ANGGNGAGGG GGNAGNTNGN GN 502

SEQ ID NO:4383
 SEQUENCE LENGTH:383
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05210

SEQUENCE DESCRIPTION:
 GATCTCTGGT CAGAGTGAAC TCTTGCTTCC TGTATTCAGG CAGCTCANAG CAGAAAGTAA 60
 GGGGCAGAGT CATACGTGTG GCCAGGAAAGT AGCCAGGGTG AAGAGAGACT CGGTGCGGGC 120
 AGGGAGAATG CCTGGGGGTC CCTCACCTGG CTAGGGAGAT ACCGAAGCCT ACTGTGGTAC 180
 TNAAGACTTC TGGGTTCTTN CCTTCTGCTA ACCCAGGGAG GGTCTAAGA GGAAGGTGAC 240
 TTCTCTCTGT TTGTCTTAAG TTGCACTGGG GGATTCTGA CTTGAGGCC ATCTNTCCAG 300
 CCAGCCACTG CCTTCTTTGT AATATTAAGT GCCTTGAGCT GGAATGGGGA AGGGGGNCAA 360
 GGGTCAGTCT NTCGGGGTNG GNN 383

SEQ ID NO:4384
 SEQUENCE LENGTH:258
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05211

SEQUENCE DESCRIPTION:
 GATCAAACTG TTGGAGGAGA AGCTGAAGGA GGCTGAGACC CGAGCAGAGT TTGCCGAGAG 60
 GTCTGTGGCA AAGTTGGAGA AANCCATCGA TGACCTAGAA GAGACCTTGG CCAGTGCCAA 120
 GGAGGAGAAC GTCGAGATTC ACCAGACCTT GGACCAGACC CTGCTGGAAC TCAACAACCT 180
 GTGAGGGCCA GCCCCACCCC CAGCCAGGCT ATGGTTGCCA CCCCACCCA ATAAACTGN 240
 TGTTACTAGN CTNTNAAA 258

SEQ ID NO:4385
 SEQUENCE LENGTH:174
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05212

SEQUENCE DESCRIPTION:
 GATCAATGAA AGGAGACATC TGGAGTGTGC GTGCTTCTC AGAGGGACGG GTGATGGGCA 60
 GATTGGAAAA AGCACCAGCAG ATGGGAACCT TAATCTTCT TTTCTAAAT TGATGCTATG 120
 AAAATTGCG TTTCTGTAA CTTGTAAAAA CTAAGAGTTG CTTGTCTACT GAAA 174

SEQ ID NO:4386

EP 0 679 716 A1

SEQUENCE LENGTH:62
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05213
 SEQUENCE DESCRIPTION:
 GATCAGGCAA AAATAGTTT CCAAAGTTAT TTITAATAAA GATATACAA AATTCTTATA 60
 AA 62

SEQ ID NO:4387
 SEQUENCE LENGTH:217
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05214
 SEQUENCE DESCRIPTION:
 GATCTAACGC CACACCTCCG TGAAAACACA ANTCNCACAG CAGGAACCAC NTGAACCTGG 60
 ACATCAGCAG TTTATTCAGC AGATGCTTCA GGCTCTNCT GGAGTAAATC CTCAGCTACA 120
 GANTCCAGAN GTCAGATTTC AGCAACAAC T GGAACAAC TC AGTGCAATGG GATTTTNGAN 180
 CCGNGAAGCA AACTTGCAAG CTCTAATAGC ANCAGGN 217

SEQ ID NO:4388
 SEQUENCE LENGTH:95
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05215
 SEQUENCE DESCRIPTION:
 GATCTATGCA GACAACGTG TATTCTGTTT TATAACAGTT TGTGTTGAATT TACTTACAGT 60
 TAAAAAATTT AAATATATTT ATGTTTGTAC GGAAA 95

SEQ ID NO:4389
 SEQUENCE LENGTH:192
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05216
 SEQUENCE DESCRIPTION:
 GATCTGGGTG AAGGGGAGAA CCTGCCATCT TATCCCTACC CCCCCGGGGC CCTCAAGCTT 60
 ATTTTCTTGT TGAAGAAACA CAAAACCTC GAGATTCATG TACTGTATGT TGGAGAAAAA 120
 AAATTACCTA ACTGTTCCCC CAAAAAAGTC AGTATNTTTT GTACTTTGTA AAAGTGTTNG 180
 TTAATAATGA AA 192

SEQ ID NO:4390
 SEQUENCE LENGTH:135
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05217
 SEQUENCE DESCRIPTION:

GATCTGCAGC CTTTGGGTA TCAAATGGGT CAAAACCATG GGACCTGCCA CCTCCCATCA 60
 GCAATTCTGG AAATGCACTA TTTCTACTGG TGNTCTTGCT TTTTTTTTTT TTNNATTTTC 120
 TNGNTGAANT GCCAN 135

SEQ ID NO:4391
 SEQUENCE LENGTH:270
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05218

SEQUENCE DESCRIPTION:
 GATCGTANTT AGTCCTTTTC ATCTCAGCTG CTCCTTAAAT CAGTGCAACC CCTCCAAATT 60
 AATGTGAATT GAAACTTGCA TTGCTTTTCA ACTTAATTGA ATACTTACTA TATGTGAACC 120
 ACTGCACAAA ATAGGGGAAG AAGATGTGGG AGACAAAGAT GTGGAGCCTG TCTTCAATAA 180
 ATTTACAGTT AGTTTCAGGG TACATTGTTT TNCTNCTGCT GTTAATTAGG TGTATCCCCA 240
 AGACAATAAA TACATGGNTG GGAAAGTAAA 270

SEQ ID NO:4392
 SEQUENCE LENGTH:123
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05219

SEQUENCE DESCRIPTION:
 GATCAAAATT GGNTAAATTC TATTGTAACA ATTCGTTGG TCATTTTGGG CCATAAAATT 60
 TTTTGTAAAT AGGAATTTGT ATAAAGCATT ACTCTTTTTC AATAAATTGT TTTTAATTT 120
 AAA 123

SEQ ID NO:4393
 SEQUENCE LENGTH:288
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05220

SEQUENCE DESCRIPTION:
 GATCNCACCA GTNTNCTNCA NCCTGGGCCA CAGAGCAAGA CCTTGACTCA AAAACAACAA 60
 CAACAACAAC AAAAATTCTT GAAGATTTTG CATTCTGTCC CACTATCCAT TGGTTTTCAT 120
 GTCAAGATAA TGTGAGAAAT TCTTTACAAT TGCTTCCAGA AGGANTAGCC TTTTGATTTA 180
 GTGCACAGGT GTCCAGTCTT TTGGCTTCTC AGGCCACAT TGGAAGAAGA ATGCTCCTGA 240
 GCCACACATA AAATACACTA NTGNTAACAA CAGCTGATGG AGCTTAAA 288

SEQ ID NO:4394
 SEQUENCE LENGTH:156
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05221

SEQUENCE DESCRIPTION:
 GATCCTNCGT TCTNTTGTTA TAGATTAGTT TGCCTTTCCT ACAATTTTAT ACACATGGAA 60

TAATACTATA GGTACTCTTG TTTGGCTCCT NCCATCCAGC ATAATAAGTT TGAGATTCAT 120
 NCATGTTGTT ATATGCGTCT ATGTTTCATTC CTNNNN 156

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SEQ ID NO:4395
 SEQUENCE LENGTH:149
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS05223

SEQUENCE DESCRIPTION:

GATCCTNCTT TTCCTTCATG NCAGCACAAG TGCTCACC GGCCAGAGCC AGGGCATGGA 60
 TATGACAAGC AGGGCAGCCT GGACACTGCC CTCACAGGAC AGCGCCAATA ACAATACAGT 120
 GTCTGAGTAT CTCCAGGGGA AAAAATAAA 149

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SEQ ID NO:4396
 SEQUENCE LENGTH:204
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS05224

SEQUENCE DESCRIPTION:

GATCCTGCTT GGNCTATCAC AGAGCATTGA CCATTGGCTT CCCTCATCTG AGNCGTGGGA 60
 GAGCANACTG GATAGATGAG AATTGTTTTA AAACAATTGT GAACAGAAAC TGNAGATGGT 120
 ACAGTNCCTAC ATCTGCACCT GCCCTTTTTT CATACCACAA AAGTATTTTT NNAGTACTGT 180
 ACTGGACTTT TTGCNAGTNN CTAN 204

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SEQ ID NO:4397
 SEQUENCE LENGTH:213
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05227

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SEQUENCE DESCRIPTION:

GATCCTGATG TATGAGGAAA AAGCGAGAGA AAAGGAAANG CCAACAGGCC CCCAGCCAA 60
 GAAAGCTATC TNTGAGTTGC CCTGATTGTA AGGGAAAAGG GATGATGGGA TTGAAGGGGC 120
 TTCTAATGNC CCAGATATGG AAACAGAAGA CAAANTTNTA AGCCAGAGTC AACAAATTAA 180
 NTAAATTACC CCCTCTCTCA ANAANTANTT TNN 213

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SEQ ID NO:4398
 SEQUENCE LENGTH:67
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05228

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SEQUENCE DESCRIPTION:

GATCCATCTG AGGAATCACT CTGTGTTGCA CTTATGCCCT CATAAANAT ATTTATTGAA 60
 GAATAAA 67

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SEQ ID NO:4399

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EP 0 679 716 A1

SEQUENCE LENGTH:70
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 5 CLONE:HUMGS05229
 SEQUENCE DESCRIPTION:
 GATCAATGCA TTNATACGG ATATAGACCT AGGGCTCTGG AGGGTGGGGN ATTGTTAAAA 60
 CACATGCAAA 70

10 SEQ ID NO:4400
 SEQUENCE LENGTH:148
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 15 CLONE:HUMGS05230
 SEQUENCE DESCRIPTION:
 GATCTCTATA GAGGCTGGAA TGGCCACAGA GAATCTAAAT NTGAAAACAA ACATGTCCTG 60
 AGGGTGTGCT CCAATACCAC CCNNTAATAC TCTCCTGAGA TGTGAAGGCT NGAAATGAGA 120
 20 ATGCCATNTT ATTGTNACTT NCAAACGN 148

SEQ ID NO:4401
 SEQUENCE LENGTH:210
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS05231
 SEQUENCE DESCRIPTION:
 GATCCTTGTT TTGAGCTCTC AGAATCACTC AGACAACATT TTGTAAGTGC TGCTGTTGCT 60
 30 TTCTACATAC ACCTTATAAA GTGACATTTT AAAAGAAATA AGGTGCCACA GTTTTAAACC 120
 AGAAGGTGGC ACTCTGTGGC TCCNTGTAGT ATTATAGCTA TACTGGGAAA GCATAGATAC 180
 AGCAATAAAG TACAGTAATT TTACTTTAAA 210

35 SEQ ID NO:4402
 SEQUENCE LENGTH:71
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05232
 40 SEQUENCE DESCRIPTION:
 GATCCTGTTG CAAACTGTGA ATATTCTGAT GATGCCAGTA CAGTTTGATT TATTAAATGT 60
 GGGTCCTCAA A 71

45 SEQ ID NO:4403
 SEQUENCE LENGTH:240
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05233
 50 SEQUENCE DESCRIPTION:
 GATCTGAACC CGTCTCCCGG GTGCTGTAAA TAGTCTGATA AACGTTTACA CAGTCTAAAA 60

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TTACCCTTTA TATTTGCTGA ATACAACTCA TCTTTTGTAG TTTAAAATTT CTATTGTTTT 120
 GGAGCTAGCT GTGAGTTTCT AGAAGTGAC AGAGTTGCTC CNGTGTCCC GGGTCANGTT 180
 GAGTAGGGAA TAAATAAATC TGATGCNGCC TCCTGAGGCT GCCGGGGGGT TTCTGCTAAA 240

SEQ ID NO:4404

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05234

SEQUENCE DESCRIPTION:

GATCAAGNAT ATTTTTATT TTAAAGAAAG CATAACCAGC AATAAAAAATA CTATTTTTGA 60
 GTCTAAA 67

SEQ ID NO:4405

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05235

SEQUENCE DESCRIPTION:

GATCTAATTC CAAGGACTTC TCCACAGCTA AGTNAGATGC CTCANACCAT TAGGTGATGC 60
 TTTGGACAGA ACAGAGTATT TNAATCTTGT GTTTAAAGCA ATTCCTTGGC TTCGGCTCCT 120
 CACCACTTTC TATGCCAGTN TCCCATTTAT GTCCCTAGTA ATGCCTATGC AAA 173

SEQ ID NO:4406

SEQUENCE LENGTH:263

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05236

SEQUENCE DESCRIPTION:

GATCCGACGA GTGATGTTGG TTGAGGCAGC AAACAGATGG CAGGATGGGC ACTGCCGAGA 60
 ACAGCATTGG TCCCAGAGCC CTGGGCATCA GACCTTAACC ACCAGGCCCA CAGCCCAGCG 120
 AGGGAGAGGT CGTGAGGCCA GCTCCCGGGG CCCCTGTAAC CCTACTNTCC TCTNTCCCTG 180
 GACCTCAGAG GTGACACCCA TTGGGCCCTT CCGGCATGCC CCCAGTTACT GTAAATNTGG 240
 CCCCCAGTGG GCATGGAGCC AAA 263

SEQ ID NO:4407

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05237

SEQUENCE DESCRIPTION:

GATCAGAATG TTCTAAATNT TGACTAGTTA CTTTTATTA TGAGTTAATA TAGTTTAGCA 60
 GTAAA 65

SEQ ID NO:4408

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05238

SEQUENCE DESCRIPTION:

GATCTCTATA TTAAATNCTA AAATGGGATT AAAAGAAGAG TTGGAGAATT CACACTTATT 60
GAGTAACTGA TGTCATACAA CCTGGAATTT CTGAATTCCA AATAAATAAA TTTCACCTTT 120
TAAA 124

SEQ ID NO:4409

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05239

SEQUENCE DESCRIPTION:

GATCTATGCA GTATACATTT TNCAGGCTGA AATTCAAGGG GAATCATTCT GATTATNCTT 60
ACTACAAATG GAGATGGCTA TTATGAAACA GCATGAGCAT GAGCCTTTNA TCTNTNATAC 120
TTAGTGATAT ACTTTGCTTG AAAATCACTC AGCAAAGTAG TTCACATGAT GTGTTATCAT 180
ATTTGANGTG TGGNTTNTCT CAAAATCATT GNCITTAAGG NGCTCATTNC TGAN 234

SEQ ID NO:4410

SEQUENCE LENGTH:191

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05240

SEQUENCE DESCRIPTION:

GATCNTTTTG TATGTNACGT GTTAAGGGCT TGTTTGGTAT CCCACTGAAA TGTTCTGTGT 60
TGCAGACCAG AGTCTGTTTA TGTCAGGGGG ATGGGGCCAT TGCATCCTTA GCCATTGTCA 120
CAAAATATGT GGAGTAGTAA CTNAATATGT AAAGTNGTAA CATACATACA NTTAAATGG 180
ANATGCAGAA A 191

SEQ ID NO:4411

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05241

SEQUENCE DESCRIPTION:

GATCACCTGA GCTGCCTCAG ATTCCATTTG GTCCTCTCCT TCCTGGAAGG CTTCCTTTTA 60
TGTTTTGTTT TAATCCCAA TGTCTGAATG TTTTGAGTG TGTAGGGGTT TGAGCCCCTT 120
GTTCAATTCTC CTTCCTTTT CCTCCGCTT CCCTCTCCAT GAAGTGATC TGTGACAAT 180
AATGTATACT GCGCGTNTC TTCACTGGTT TATCTGCAGA AATNNCTCTG GGCTTTTNTC 240
GGTGTTAGAT TCAACACTGC GCTAAAGCGG GGATGTTCCA TTGAATAAAA GAGCAGTGTG 300
GTTTTAAA 308

SEQ ID NO:4412

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05242

SEQUENCE DESCRIPTION:

GATCCACCCA CCTTGGCCTC CCAAAGTGCT GGGATTACAG GCGTGACACN CAAACCCAGC 60
 CACCAATTTT ACTTTAGGTA AACITTTTATT TTCAAGCTTT TGTGGTGTT GCAAGTGTA 120
 ATCTGTTTTA TAAATGTTC TATAAATATA ACCACTATTC CTTGTAAGCT ATTTAAATA 180
 AATTTTAAAG TCTTCAAGT AAACACCAAA 210

SEQ ID NO:4413

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05243

SEQUENCE DESCRIPTION:

GATCTGAATT TAGGNACATT TCCTTTTCT GTGGGAATCA CAAGAGTTTA TCCACTAAAA 60
 AAAGATATGT AAAAAAGATA CTTTCCAGCA CATAAATAA GGCTGGAATT TTACAACCTG 120
 ATGTATATAT TAGACAGTTC TAGGATGTTA GTTCCCTNCA TNCCAGAGCT ATGCTTGTA 180
 TACAGCCCCT TTTCTTATAA AGTCAGTTAG ANGGACTTCC TTAACAATGA CTATTATAAT 240
 GNCTTNCTTA AAATACAGTT TTGTATTCTG TCAATGCAAA TATAAGACAG GTTGTGCCNT 300
 AATCATGTAN CANGNNTATT TTGNAGNTT ACATATN 337

SEQ ID NO:4414

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05244

SEQUENCE DESCRIPTION:

GATCAGCTAG CTACCTTCTA CTTTCCATT TTCAAGTGGA TTGTTCTCTT AATTTGTATA 60
 TAACCTGTTG TCTAAATTTT ATGTACAGTC TTTATAATA AACCATTCTC CTATATGAAA 120

SEQ ID NO:4415

SEQUENCE LENGTH:185

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05245

SEQUENCE DESCRIPTION:

GATCTGGCTC ATCCATCTGC AACTGACCA CGCTAAGAGC TGTCTGCAGT GATGGAAC 60
 TTCTCTAGCT GTGCTGCTCT CTATAGTGGC ACCAGCTGCC TGTGGCTACT GAGCACTTCA 120
 ACTGTGGCTG CAGAGACTAT GTTAAATTGT ATTTAATCAT AATTAATTTA ATTGTAAACA 180
 ACAA 185

SEQ ID NO:4416

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05246

5 SEQUENCE DESCRIPTION:

GATCTTAAAA TTCGTTTGCC TTTTAAAGC TATATTAAAA ANGTATTGTT GAATCAAA 58

SEQ ID NO:4417

10 SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05247

15 SEQUENCE DESCRIPTION:

GATCCACAAG ATTNAGAAAA TATTATATAG TTAGATAATA ACATTCTTGT CTACTGATAT 60

CCNANCTNGT TACAAAATTN TTTAAACTT AAATAAAAAC ATGCATCTN 109

SEQ ID NO:4418

20 SEQUENCE LENGTH:363

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05248

25 SEQUENCE DESCRIPTION:

GATCCCTCTA CAGAGCTTCC CTGACTCATT CTGAAGGAGC CCCATTCCTG GGAAATATTC 60

CCTAGAAACT TCCAAATCCC CTAAGCAGAC CACTGATAAA ACCATGTAGA AAATTTGTNA 120

TTTTGCAACC TCGCTGGACT CTCAGTCTCT GAGCAGTGAA TGATTCAGTG TTAAATGTGA 180

TGAATACTGT ATTTNGTATT GTTCAATTG CATCTCCAG ATAATGTGAA AATGGTCCAG 240

30 GAGAAGGCCA ATTCCTATAC GCAGCGTGCT TTAATAAATA AATAAGANAC AACTCTTTGA 300

GAAACANCAA TTTCTACTTT GAAGTCATAC CAATGAAAAN ATGTATATGC ACTTATAATT 360

TTN 363

SEQ ID NO:4419

35 SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05249

40 SEQUENCE DESCRIPTION:

GATCACATTC AGGATAAGTG TACAGAAGAA AATACGGGGTG TTTACTCTTT AGGGAAGTGG 60

AAACACTCCC TGCATTGATG TACATTTTAA GAATGGCACT TTTGATACAT GTTATCATAA 120

AGGTGCTTAA TAGAGCTGAA TTAAAGTTTT TCAATCTGT AAACANNGCA AAAANGTAAA 180

45 TTGTAGTCAT TTGATTATTT TTTAAATNGG NGCTTTATAT TTNGTNCTCA CTCAGAGTAA 240

AAGCTGCAAT TTATTGTNCA CCCAAA 266

SEQ ID NO:4420

50 SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS05251

SEQUENCE DESCRIPTION:

5 GATCAAAGCA ATTTACAGAT TCAATGCTAT TCCTGTCAAA CCACCTATGA CATTCTTCAC 60
AGAACTAGAA GAATAAACTA TAAAAAGTTC GTATAAAGTT TAAA 104

SEQ ID NO:4421

SEQUENCE LENGTH:256

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05252

SEQUENCE DESCRIPTION:

15 GATCTCAACA GTGTGGGGTG AACAAGAAGA CTGTATCTTC AGCCTTTTTC CTATAATCAT 60
GGATGATTG GTCTTATTCA AAAGGACCGC ACATATTAGT ACTCTTAAGA GCATCTTCCA 120
AGACTCCAGC AGNGAGCATT TAGAGAGTGT GTTGTCTTCC AGAGTCATGA ATGATTTTGT 180
TTAGCTATCA GGTCTACTAC CTCTAAGGAC ATTCATAGC AGCATCTCTT GAGTTGCCTG 240
CATCAGTGTG GTGGTN 256

20 SEQ ID NO:4422

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS05253

SEQUENCE DESCRIPTION:

30 GATCTGAATA TAATTCTGGT AACAGCTGT CTTCAATTTT NTCCTCTAAA GAACTTAATT 60
CATTTGTTAC ATAAATATA AGGAAATCTT TGTACTATTT TACAGTAACC ACAATCTAAA 120
TATTACATA TACCCAAAAT TANTTTATGC TCATATATTA GGATGTGAGA NTATCATCTG 180
TTTATGGACA CATGAAACCT CCTAATGACC TGGAATTGTT AGANTATNTG ACTTTTATA 240
TGCAAAGTTT TTCGN 255

35 SEQ ID NO:4423

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05254

40 SEQUENCE DESCRIPTION:

GATCCCCGGT GGTTTTGTGC TCAAAATAAA AACTGATTAA ACCTTTGTGG CTGTGAAA 58

45 SEQ ID NO:4424

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05255

50 SEQUENCE DESCRIPTION:

GATCCTTTTC TTCTCTTATA AATCATCCTC TTAATGAAAA TTAGCCTAAC AAAAGTTTGG 60
AGACTGGAAT CCTACTTTGA GCCACTGACT TGAAATAACT CTTTGGCAA GTTGCTGAC 120

55

ATCCTGTCTT ACCAAGGTGG CAGGTTTGCA TTTTACTGC TTA AACATT TTTNTTTTT 180
 TAACCATCTT NANCCAAATT NATCATATNN GNGGTNGGCC TANCAGGNTT TTNN 234

5 SEQ ID NO:4425
 SEQUENCE LENGTH:200
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS05259
 SEQUENCE DESCRIPTION:
 GATCCACCTG CCTCAGCCTC CCAAANTGCA NGGTATTACA GNCANGAGNT TCTGCGTCTG 60
 GCAATAATGT AACTTTGAAG CTTAAAAATT AATCCCAGTT TGTAGCAATA ACAGAAGACT 120
 ATCTACAACG GAAGAAAGAA GCAACTGCCT TACAGTTCTG TAAAGANTTG GCAAGAAAAT 180
 15 AAAGCCTATA GTGCCGAAA 200

SEQ ID NO:4426
 SEQUENCE LENGTH:84
 20 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05260
 SEQUENCE DESCRIPTION:
 GATCTAGTCA TCTTCTGTAG CTACATAGTA CTCCTAATGT TAAGATTACC AAATTCAGCA 60
 25 ATAAAGCCAA AATCAAACT GAAA 84

SEQ ID NO:4427
 SEQUENCE LENGTH:75
 30 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05262
 SEQUENCE DESCRIPTION:
 GATCATAAAC CAGTGNNATC AGACCTATGT GTAATAAGAC TCCTGTTAAT ACAAAAATAA 60
 35 AAAGCTAAAA GCAAA 75

SEQ ID NO:4428
 SEQUENCE LENGTH:424
 40 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05263
 SEQUENCE DESCRIPTION:
 GATCTCAAAC TTGTCTTAAA TCAACAACCT TCTACTCATG TTAATGTCTT GATTAAATAT 60
 45 CACAATGCAA AATACACATT AAGTAAAAGA ATTCCAGCTG GTAAACATGA CCTGGACATT 120
 TGTAAGAATA TATTTAATAT ATGTNCACCC ATTATGTTTT TAGGTAACAG GNGGNNAAAT 180
 GCANCNCAAT TTTTTTCTC TTGAAAGGCA CTGTCATTTA ANCATAAACC TGGAGTACTC 240
 GAAATAGAAT TCAGGTTTAC ANGATGAAAG CGTGTGGAGA AGTGTGAGAT GGCAGTGGNA 300
 50 GCATGTGTGT TTCTAAAANG TAAANTCTC AAGGAAACCA NGANATGGCA TGCTTTTACC 360
 CATCTTNCCT TAGTGAAAAG NGTGCTTCAG GTTTGANATT GTTTTAAGAA AGNTAGCCGG 420

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GNTN

424

5 SEQ ID NO:4429
 SEQUENCE LENGTH:122
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05264
 10 SEQUENCE DESCRIPTION:
 GATCTGCTCC CTCTCGCTCT CTCCTCCAC TACTTTTGG AACAAAGTGA TGGCAGAATG 60
 CGGTGGTGGT GGGGGTCTT TGTACTGTTG GATTAATAAA ATGATTNAA ATTNCNNNTA 120
 AA 122

15 SEQ ID NO:4430
 SEQUENCE LENGTH:85
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 20 CLONE:HUMGS05266
 SEQUENCE DESCRIPTION:
 GATCAGTATA ATTTTNAAG GTTACTTTGT NAGAGGCACA AAAGGGTTTA AACTGNTTCA 60
 TAATAAATAT CTGTACTTCT TCAAA 85

25 SEQ ID NO:4431
 SEQUENCE LENGTH:187
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 30 CLONE:HUMGS05267
 SEQUENCE DESCRIPTION:
 GATCACGTAG ACATGTAACC CAGCAGCAGT TTGCTTCTGT TGTCCACTGA TTAATCAGCC 60
 TATGTGCCTG AACTGGTCT TGCAGTACAA CTGNAAGCCA AAACAAGGTG GAAGATGTCC 120
 35 TGAATTAAGA TGTTTTCACC ACATTGTATT ACAGAGACAG CCAATAAATC TACTATTTGA 180
 TTTCAAA 187

40 SEQ ID NO:4432
 SEQUENCE LENGTH:211
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05269
 SEQUENCE DESCRIPTION:
 45 GATCTTTTAT TTNTGAAACA CTCAAACACC TTACAAAGTG CTGAGTAGGT AATAGTGACC 60
 CAACTTGTTT GCTAAATGAT TATTTGTTA AATCTGTACA GTTTAAGTG TTCACTTATA 120
 CAAAGAGTGT ATATACTTTC AAATAATTNA AAATGCTTTA NATTATNNGG CTAGAAATTG 180
 CNGTTTTNAA TAAATGTGAA TNTNTNAAAA N 211

50 SEQ ID NO:4433
 SEQUENCE LENGTH:62

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SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05270
 SEQUENCE DESCRIPTION:
 5 GATCTGTTGT TAGGATTCTA GTTAACACTT TTNTTTTAA AACTAAGGA CAAATGAACA 60
 AA 62

10 SEQ ID NO:4434
 SEQUENCE LENGTH:98
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05271
 SEQUENCE DESCRIPTION:
 15 GATCCCAGGG GAGGGGTCTC TCTCCCATC CCAAGTCATC CAGCCCTTCT CCCTGCACTC 60
 ATGAAACCCC AATAAATATC CTCATTGACA ACCAGAAA 98

20 SEQ ID NO:4435
 SEQUENCE LENGTH:239
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05272
 SEQUENCE DESCRIPTION:
 25 GATCGTATCC CGCTGACACA GAAGGNTGCC GGGTGGGGGG AGGGCACCCA TGAAATTCAA 60
 AGAAAACCCCT AAGTGTGGAT GTTCAGAATT TTGGAAAAAT GTCACTGAAG TGATTGAAAG 120
 AGTGCCTGGC ATGCAAGGNT AAGAGGTTCT TTACATAACA TTTCTAAAT GCTTAATAAA 180
 30 CGTTTGTTC ACTTGGTTT GACATTGCCA ATGGGGTTG AACCAGTGCT CTCTCTAAA 239

35 SEQ ID NO:4436
 SEQUENCE LENGTH:102
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05273
 SEQUENCE DESCRIPTION:
 40 GATCTGCAAT GACTGGAAT TGCCGGTGCC TGGGGTGCCT TTCCCCCAGC CAGGGTCCAA 60
 AGAAGCTTGG CTGGGGCAGA AATAAACCAT ATTGGTCGGA AA 102

45 SEQ ID NO:4437
 SEQUENCE LENGTH:333
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05274
 SEQUENCE DESCRIPTION:
 50 GATCTTCTTT TGGGAGGATT TGATGTAAGT NACTGACAAG CCTCAGCAA CCCAAAGATG 60
 TTAACAGTAT TTAAGAAGT TGCTGCAGAT TCCTTTGGCC ACTGTATTG TTAATTNCTT 120
 GCAATTTGAA GGTACGAGTA GAGGTTTAAA GAAAANTCAG TTTTGTNCT TAAAANTGCA 180

55

TTTAAGTTGT AAACGTCTTT TTAAGCCTTT GANGTGCCTC TGATTCTATG TAACTNGTTG 240
 CAGACTGGTG TTAATGAGTA TATGTNACAG TTAAAAANAA AAGTTGGTAT TTTATANGCA 300
 CAGTCAATNC TNATGGTAAC TTTTGGTNGT CTN 333

5

SEQ ID NO:4438
 SEQUENCE LENGTH:72
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05275
 SEQUENCE DESCRIPTION:
 GATCAATGTT TCAGCCCTAG ACTGCCCAAG GAGTATTATT AATTATTAAT AAATGAATTC 60
 TGTGCTTTTA AA 72

15

SEQ ID NO:4439
 SEQUENCE LENGTH:100
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05276
 SEQUENCE DESCRIPTION:
 GATCAGATTA TTTTACTACC AACAGTTATA GTTGAAAAGT CCAACTGTAT TAATTGACTG 60
 ATAATATGAT AATATAGAGA TTAAATTGTT TGTNTTCAAA 100

25

SEQ ID NO:4440
 SEQUENCE LENGTH:96
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05278
 SEQUENCE DESCRIPTION:
 GATCACAAAG AGCAAACAAA TGTCATATC TCTTATGAAT GGTGAAAAAA AGGAATTAAT 60
 CGATGCAAAT AAACCTTTCA CAGTATTACT TTAAAA 96

35

SEQ ID NO:4441
 SEQUENCE LENGTH:116
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05279
 SEQUENCE DESCRIPTION:
 GATCTAGCAA GCCATGGCGA CAGGTAGCAT TTNTAAGATG NTGNACAGGA GCAGNATTAT 60
 CCCCCAAGAT ATTACAGGGT AGACACGTTT TAACTAAAA CAATCAAGNT AACTTN 116

45

SEQ ID NO:4442
 SEQUENCE LENGTH:411
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05280

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SEQUENCE DESCRIPTION:

5 GATCTGACAT ATATCACCTT CTGGGNTATT TACTCATTGT GCCAGGACCT GGCATTTTCA 60
TGTGCCCTTG ACCAAGTGTT CAGAATTTGC TTGNCTCTAA CCTGGAGAGC TTCTTAAGTG 120
ATGCCCTTTC ATGGAGCTTC TATGACAGTG AATAAACTAT TAATTGAAGG AAAATGTTAT 180
AATTAANGTA TCTATTTGCT GCATTGTATA TGGATTAANT GNTAAAAAAC AAGTAATCTA 240
CCCTCAGAGC CATGTATTTG AGAATGCTTT CAATCATATT TNCCTATGNA CTTTTTTTTT 300
ATAAACTTAG TTTTANGCCT ATGTTGTAAA ANTGGGAAGG TTNGTAAACN TATGTTTGGN 360
10 AAAANTAGGG GAAATGTNGG CTTAAANTTN TTTTNCANTT ATNTTNGTTT N 411

SEQ ID NO:4443

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05281

SEQUENCE DESCRIPTION:

20 GATCTATCTG GGGGTCCTAG TGTACCACAA GCTGAACCTG AAGATTTGGA AAAATGTTTC 60
TAATTAAATA AAACAGAGCA AAAAGACAAA 90

SEQ ID NO:4444

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS05282

SEQUENCE DESCRIPTION:

30 GATCTACATT TAAGTGGAAG AATTAGCAGT ATTTGAAAGC TCAGTTTNAA TCATTGTCTT 60
AACTTCAGAT ACAAATAACT GAACAGAAAG TTTTAACCTT TAATATCTCA TGTNCTGTTT 120
NTTATTCAGT ATTTTCCTNT ATGTTAATTC AATTATATAC TTCTGAATGG CACCTTACTT 180
TTTGGAACA AATCTTCTGT TATTTACAAA ATAATAATTT TTANAAAAACA TTTAAAAAAA 240
ATCCAAAGCT GCTCTCGATA ATAGTCAACA TTTGCATATA TATGGAATTT CTTACTTTNT 300
35 TTCTCCCAA CTCTATTTAA TAAACTNATT TTAATGGTTA AA 342

SEQ ID NO:4445

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS05283

SEQUENCE DESCRIPTION:

45 GATCACAAA ATGTATTTTA TAAATGTTC TGTACAATAA AGTTACACCT CAAAGTGTA 60
A 61

SEQ ID NO:4446

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

50 TOPOLOGY:linear

CLONE:HUMGS05284

55

SEQUENCE DESCRIPTION:

GATCATTATC AGTAATTTC TAGCAACTGT TCTAGNGTTT TNGGTTTTTA AAACAGAATT 60
 AGGAATTTGA GATATCTGAT TATATTTTTC ATATGAATCA CAGCTGTTGA CAATGTCCCA 120
 TATATTTAAG AAATTATATC ATACTGATAC TATTTGTAAC ATTTTGATTT GATTTAATCT 180
 CCAGGGACAG AAATAATTCA TTGGTAAAGN GTAATAATGC GTTTTTTAAA AATGCTTTGA 240
 GAGGTAATTA CTTGCATATG AGAGAAATAA AACATTTGGC ACATTGTTTA CAGGTGTGAA 300
 A 301

SEQ ID NO:4447

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05285

SEQUENCE DESCRIPTION:

GATCAGACCG AGAAGCAGGG TGAGAGATTC TAACGACTGG ATGCTGCTAG TAACACATTG 60
 TTTGTATTGC TTTACCATT TTAAGTGTGA GATTTGAGAT GAACATACAT TTTGCTTTTT 120
 TAATAAATGT TTAAGAAG TCCACATAAG AAA 153

SEQ ID NO:4448

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05286

SEQUENCE DESCRIPTION:

GATCACTACA GTGAAGTATT ACAGTTGTAC AGTTCCAGT CTGGCCTTGG CTTGCTCGGA 60
 TAAAACCTTG TATGTATTTT GTATGGCATA GATTCTATAT TGTAATGATG TCCTATGCAA 120
 AAAGAAAAAT TAACGAAATT GTAAATTTTA TTGTTTAAAC GTGTATGCAT GTTTAGTGAC 180
 GTTTACATTT TGAATAAAAA TTTATGATT ATTAAA 216

SEQ ID NO:4449

SEQUENCE LENGTH:172

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05287

SEQUENCE DESCRIPTION:

GATCTGGAAA CGTTTTGTAC CGATTATCCA CAGCAAAACA AAAATAAGCT TTTATTTTAT 60
 TAATAATTTT GTTCCTCTTG TGCCCAATCA AATCTTTTAG GAACAACTG CAAGAAAAAGC 120
 TAAGAATGTT TTAGAGTGAA CTAAATACAG ACATTGCTTA CTTGTTTGA AA 172

SEQ ID NO:4450

SEQUENCE LENGTH:289

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05288

SEQUENCE DESCRIPTION:

5
 GATCTCCCTG TGGCAGCAGG CATGGAGAGT CAGGGCTGCC TTCATGGCAG TAGGCTCTAA 60
 GTGGGTGACT GGGCACAGGC CGAGAAAAGG GTACAGCCTC TAGGTGGGGT TCCCAAAGAC 120
 GCCTTCAGGC TGGACTGAGC TGCTCTCCCA CAGGGTTTCT GTGCAGCTGG ATTTTCTCTG 180
 TTGCATACAT GCCTGGCATC TGTCTCCCTT TGTTCCTGAG TGGCCCCACA TGGGGCTCTG 240
 AGCAGGCTGT ATCTGGATTC TGGCAATAAA AGTACTCTGG ATGCTGAAA 289

10
 SEQ ID NO:4451
 SEQUENCE LENGTH:121
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05289
 SEQUENCE DESCRIPTION:
 15
 GATCTCTTAA AAATACCACA GTTTGTATTT TTCCTTTAAG GAGTAAAGAT TTGCCTTTAA 60
 ATAACCTGGT ATTTTCCTGG CTTTCGTTTA ATACAATAGA AAATAAAGTA TTACACCGAA 120
 A 121

20
 SEQ ID NO:4452
 SEQUENCE LENGTH:293
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05290
 25
 SEQUENCE DESCRIPTION:
 GATCAATGTG ACGGCAGGGA AATGTATGTG TGTCTATTTT GTAAGTGTAA AGATGAATGT 60
 CAGTTGTTAT TTATTGAAAT GATTTCACAG TGTGTGGTCA ACATTCTCTA TGTGGAAGCT 120
 TTAAGAACTA AAATGTTCTA AATATCCCTT GGACATTTTA TGTCTTTCTT GTAAGGCATA 180
 30
 CTGCCCTGTT TAATGTTAAT TATGCAGTGT TTCCCTCTGT GTTAGAGCAG AGAGGTTTCG 240
 ATATTTATTG ATGTTTTTCAC AAAGAACAGG AAAATAAAAT ATTTAAAAAT AAA 293

35
 SEQ ID NO:4453
 SEQUENCE LENGTH:336
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05291
 SEQUENCE DESCRIPTION:
 40
 GATCTAGGTC CTTCTATCTC GTCCCTCTAC AGATGTATTT TCCACTTGCA TAATTCATGC 60
 CAACACTGGT TTTCTTAGGT TTCTCCATTT TCACCTCTAG TGATGGCCCT ACTCATATCT 120
 TCTCTAATTT GGTCTGTGATA CTTGTTTCTT TTCACGTTTT CCCATTTCCC TGTGGCTCAC 180
 TGTCTTACAA TCACTGCTGT GGAATCATGA TACCACTTTT AGCTCTTTGC ATCTTCCTTC 240
 45
 AGTGTATTTT TGTTTTTCAA GAGGAAGTAG ATTTTAACTG GACAACTTTG AGTACTGACA 300
 TCATTGATAA ATAAACTGGC TTGTGGTTTC AATAAA 336

50
 SEQ ID NO:4454
 SEQUENCE LENGTH:252
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS05292

SEQUENCE DESCRIPTION:

5 GATCTGCTGC AACCATTATC TTNGTTCTTG AGTTCATCAT GCATTAAAA TGAGATGCAA 60
GAGCATTTAG CATACCATGT AAATATGGAC CTTTAAAAAT TAAATACTA TTGGAAGTGC 120
TTTCAACTCA GCCACATCTT AGCTATTAGT TCTTTGTGTT GTCTTATCAA AGTTTAATGG 180
ATACAGTTCC ACAGTTGTTG ATGTGTTTGT GTGTATATTC GATTNNNNNA AAGATGGTAG 240
TAAGTCAATA AA 252

10

SEQ ID NO:4455

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS05293

SEQUENCE DESCRIPTION:

GATCATACCA CTCCACTCCA GCCTGGGCAA CACAGCGAGA CTCCATGCTC CCCCCAA 57

20

SEQ ID NO:4456

SEQUENCE LENGTH:564

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25

CLONE:HUMGS05294

SEQUENCE DESCRIPTION:

30 GATCAGGCTC TCCTCATGCT GTTTAGTGAT GGCAGTGTCC AGGTGAACTN CTACGGGGAC 60
CACACCAAGC TGATTCTCAG TGGCTGGGAG CCCCTCCTTG TGACTTTTGT GGCCCGAAAT 120
CGTAGTGCTT GACTTACCT CGCTTCCCAC CTTGGGCAGC TGGGCTGCTC TCCAGACCTG 180
CGGCAGCGAC TCCGCTATGC TCTGCGCCTG CTCCGGGACC GCAGCCCAGC CTAGGACCCA 240
AGCCCTGAGG CCTGAGGCCT GTGCCTGTNA GGCTCTGGCC CTTGCCTTTG TGGCCTTCCC 300
CNTTCCTTTG GTGCCTNACT GGGGGCTTTG GGCCGAATCC CCCAGGGAAT CAAGGGACCA 360
GCTTTACTNG AGTTTGGGNN CGGGNTTGT TCGNTGGNT TCCTACCCA TNTCCAAGAT 420
35 AAGCCTTNAG CNTTAANTCC CANGNTAGGG GGCCTTATTT NATGGACCAA TTTTAAATTT 480
ATTNTAAGAA ANTTTNTTTA NTTGGGGATT TTAAGCCCAA AGGGGGGCCC TCNTCCTNAG 540
GTNANAAAAAN AATTTTTTAA GAAA 564

40

SEQ ID NO:4457

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05295

45

SEQUENCE DESCRIPTION:

GATCTTTATT TTTGATTAAT TTGTTCTGAT TTTTGGTTT GTTTTTTAAG GAACTGTAAT 60
GAACAAATGT CAGGATATCC AATGCCAAAT AAAGATGTTG TATTATTTA AA 112

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SEQ ID NO:4458

SEQUENCE LENGTH:152

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS05296

SEQUENCE DESCRIPTION:

5 GATCACACCC NGGTGAACCC ANGGTGCTAA GANTGAAAAT AACCTTGGTG AAATGTACAA 60
 NTTAAAGACA AAGAACTACA TGTGAAGATA GACTTGCTTT CTATTTTNAATCAGTAGTA 120
 GTACTGTTGC TGAATAATAC TAGGTTTTNN CN 152

10 SEQ ID NO:4459

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05297

15 SEQUENCE DESCRIPTION:

GATCTGGTGC TGCTTTCAGA TGTTTATCTT TTATTTTTTT CCCTTAAGCT TTAATCTTCG 60
 TCATTGTCTT AAAGTCAACT GGTGTTTCTT GTTCATTGAC TTTGGTACGA TGGTGCTTTG 120
 CAAGGATGTA TTTATGTTAT AATGGCCAAC ATTTGGTCAG CCCTTGTCCTTATTCACT 180
 20 TCCCTCCNTT TGTAATAAATA GTGCTTTAAT TATAAACTGT ATAAAAATAC CTTGTATAAA 240
 CCCCTTTTTT GATTATTACA ATAAATAAGC TGAATTGTAA CAAATGAAAT TTGATTTTTG 300
 TAATAAAACA GTGGAAAAGT AAA 323

25 SEQ ID NO:4460

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05298

30 SEQUENCE DESCRIPTION:

GATCCTTTTT AGTTAATACT ATGACAGTAC TAAAAATATA TGAATAACAT TTCAGATACC 60
 ATTATATTAA AATATTTGTG TATGTGTACA AAAGCGTTGA TAAATACTAA TCTTTAAAGT 120
 TTGTGGAGTT CCTTTATTTG TAATATATGT GCTCTTAAAA GCAATGGGAT GTGAAATTAT 180
 35 GAAAGTATTT TATTGTTTAT AGAAATAAAAA AACACAGTTA CTTTGCAAA 229

SEQ ID NO:4461

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS05300

SEQUENCE DESCRIPTION:

GATCTGGACC TAATGAATTC CTCAGAAAAT TCCCATGAGT CAGCTGATTT CAGTGCTGCT 60
 45 GAACTAATTN CTGTGTCTAA ATTTCTTCCT ATTTCTGGAA TGGAAAAGGA GGNCATTCTG 120
 AGCCCACTG NNNNN 135

SEQ ID NO:4462

SEQUENCE LENGTH:102

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS05301

SEQUENCE DESCRIPTION:

5 GATCTGGGTA AAGGACCATC TGGGGATTCT TTGTACTATT TTTCTTTCCG CAACTTTTCA 60
AGTTTCAAAC TATTTGCAAA TAAAGAGTTT TTGTTTGTTA AA 102

SEQ ID NO:4463

SEQUENCE LENGTH:189

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05302

SEQUENCE DESCRIPTION:

15 GATCACATGG CTAAGGTGGT GTGTGCCAGG TTTCTCCACT GTAAAATTAG GAATTTTCCC 60
TTTGAAATTA ACAAGAATCT TCCACTTTGA AGCTGTGTGA ATGTCTTATT CTTAAAAATT 120
TGCCTACTGA TTTTNANNNN CATCATCAAT GATTCTTGCT TATAACAGGT ATTAATGTTA 180
TGCTTGAAA 189

20 SEQ ID NO:4464

SEQUENCE LENGTH:364

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS05303

SEQUENCE DESCRIPTION:

30 GATCATGTTA ATTTAAAGCT TTATACACAT TGTTGTTTTT GCTGGTCTCA TCTTTGGTAA 60
TATGCTATAC CCCACTGCTG CCCGACACTG CCCTNTAGCT GCAGAGCTGG ATTAGCTGTT 120
GACCATTTGA TGCTGTTGTC TGTCTGGCAG GGAATGAATG ACCTGATGTC AGATTTAGAT 180
TCTTCCTGGG GATTACACAG CTATGAATGT ATTTGCTTCT AAAACCTCCC AAAGTGAATC 240
TAATCTTAAA ACTACAAGTT GTAAGTATTC TGAAATTGGG AAACATTTAT NTNAAATGCA 300
ATCAGGNAG TGTTGCTTTT TACAGCATAA TNAATATANG TNTCAANNAN NGTGGANGGT 360
NGTN 364

35 SEQ ID NO:4465

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS05304

SEQUENCE DESCRIPTION:

45 GATCACTTGA TGTCAGGGAG TTTGAGACCA GCCTGGCCAA CATGGTGAAC CCCATCTCTA 60
CTAAAAATAC GAAAATTAGC TGGGTGTTGT GGTAGGCACC TGTAATCTCA GTTACCTAGG 120
AAACTGAGGC AGGAGAATCA CTTGAACCTG GGAGTTGGAG GTTGCAGTGA GCCAAGATTG 180
TGCCACTGCA GTCCAGCCTG GGTGATGAAA CAAGACTCTT TGTCTCAA 229

50 SEQ ID NO:4466

SEQUENCE LENGTH:496

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS05305

SEQUENCE DESCRIPTION:

5 GATCTCTAAG GAACTCCTGT TGCTAAATAT GAAGAGTATG GAACATTCAT ATAGTCTCTG 60
 TGAAGCATGG GGGGAGGGAA GACATTTCTN TTNCTTATAG GCTTTATGCT CAAATGTCAT 120
 AGTCTCCTTT CAAAGAATTG TGTTGCATTT TAAATGCACC CAGCTTAAGT AGAAGACATT 180
 GAAGGATGCA TTAATTTTCA GGAACATTTT TGGATTATGA AAAGATTCCC AATTGAAAAA 240
 ATTATTCAAC AAGTAAAAAG TAAGAAATTN CATTGAAATC ATAATGGCAG TTAAAGCATA 300
 10 AATTTGATAA ANAATAGCTG TGTACTACTA AATTAATTAG GAAAATTCNA TTCCAANCCC 360
 AAGNNGAAGG AGTCCANGGT GGAATATATCC GGTTCGGTTT TATTTGNNC TTAGGNTGAN 420
 GTTTTCCTTT GGTNAACCGN TTGNNTTTT TATTAAANAT NGNTTAATTA TTTTNGGTT 480
 AANGNTATGC CCCNTN 496

15 SEQ ID NO:4467

SEQUENCE LENGTH:415

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

20 CLONE:HUMGS05306

SEQUENCE DESCRIPTION:

25 GATCTTGGGA GATATTAATA TCTGCTGGCC AGACCTAAAA AAACTGAAG GCCCAAGGAA 60
 AGTGACTGGA CTCACTGGAA AGTNTCTAAC AAATACTTTG GATTCCAAAG TATTTCCAAT 120
 ACCTTGAAGA TTCCTTTGAA AACATCAAAG CACAACTCA AATCTGCACA AGATTACAAA 180
 AGCACAAATTT TGGTGITATT TTTAGANTNC AATACACAAA GCTATTGTC ATTTCTNTCA 240
 GCAAGCATTT TCCTGGGTAG TAGTAATAGC TTAGGAATCA AATGCCACTT TTNTTTTCC 300
 TTTTTCAC TAGTTTGAAA TACCACAANT NACAGGTNAG TCAGTCTCC CAGAGGNNA 360
 NGGNCAGTCC TAGGGNGGNA TCAACAGGNC TNGCAAGNCA AGNCCCACAA NTTNN 415

30 SEQ ID NO:4468

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS05307

SEQUENCE DESCRIPTION:

40 GATCGCAAAT TGAAATATGG ATATTTGTAC CAGGCTGCGT GTTTTTCATT TTAAACACAC 60
 AAGATTTAAT TGAAAGGACA TCAATAATCA TAATTGTGTA TTTAACAGGT GGTNTNTAT 120
 TAGTTTCTN GTGTTTCAGA CTTATGCAG CCATATAAAC TGTTCTCTAG GCATGCTGTG 180
 ACATTTAAT AAAAAGCAAA AGGAGCAAA 209

45 SEQ ID NO:4469

SEQUENCE LENGTH:353

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS05308

SEQUENCE DESCRIPTION:

55 GATCGCACCT TTTATACCAG AGACCTGAGG CAGATGAAAT TNATTTCCAT CTAGGACTAG 60
 AAAAATTGG GTCTCTTACC GCGAGACTGA GAGGCAGAAG TCAGCCCGAA TGCCTGTNAG 120

5 TTTTCATGGAG GGGAAACGCA AAACCTGCAG TTCCTGAGTA CTTTCTACAG GCCCGGCCCA 180
 GCCTAGGCCC GGGGTGGCCA CACCACAGCA AGCCGGCCCC CNCTCTTTTG GCCTTGTGGA 240
 TAAGGGAGAG TTGACCGTTT TCATCCTGGC CTCCTTTTGC TGTTTGGATG TTTCCACGGG 300
 TCTNACTTAT ACCAAAGGGA AAACCTCTCA TTAAAGNCCG TATTTCTTCT AAA 353

10 SEQ ID NO:4470
 SEQUENCE LENGTH:64
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05309
 SEQUENCE DESCRIPTION:
 15 GATCCTCTAA CACTGTACTA AAACATTCA ATAAATCAT TCTGACTGCG TTCATAAAAA 60
 CAAA 64

20 SEQ ID NO:4471
 SEQUENCE LENGTH:169
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05310
 SEQUENCE DESCRIPTION:
 25 GATCTATTAC TGACCGTATG ATGAGGCCAA CTTTTTNCC TTGTGGTTAG CAAGACTGCA 60
 AGAGATGGAA AAAAAGTAGT TTGAATGTTT TGTGTGTAAG GAGTATACCA TGAGATGAGA 120
 TGACCACCAA TCATTTCCTT GGGGGGAGGG GGTGTCTGCA CCNTAGAAA 169

30 SEQ ID NO:4472
 SEQUENCE LENGTH:132
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05311
 SEQUENCE DESCRIPTION:
 35 GATCACTTGA ACCCAGGAGT TTAAGTCCAG TCTGAGCAAG GCAGTGAGAC CCTGTCTCTA 60
 AACAATAAAA ATTAATAATA GTATTATCGA GAGTTCCTGG AGGGGTGAAA TTAAAGACTT 120
 TCAAAACTTA AA 132

40 SEQ ID NO:4473
 SEQUENCE LENGTH:328
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 45 CLONE:HUMGS05312
 SEQUENCE DESCRIPTION:
 GATCACCAGG CTGCCCAAGG GTGCTGTGCT CTACAAGACT TTTGTCCACG NGGNTCCTGC 60
 CAAGCCTGAG GGCACCCGTC AAACCTGGTAG CTATGCTTNG ATGTCCTGTT GAGGCCATCG 120
 GACAGAGACT GGAGCCCANG TGACAGGAGA TGGTGATACC AGAAGTCAAG GGTGGGGGTG 180
 50 GCGACACGGC CTCCCGAGGA AGAGGTCTGC TTGATGGTGA CTCTGCAGGA GACTCTGAAG 240
 TGA CTGCTGG GAAACCCTTT GGGAGACCTN ACCTGNGGCC AAAANTAAAG TNNGCCAGCN 300

55

TCATGAACCG CATNCTATTT AAGGGAAA

328

SEQ ID NO:4474

SEQUENCE LENGTH:307

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05313

SEQUENCE DESCRIPTION:

GATCTGGACA TGCTGTNACA AGAAATAGTG ACCTTGGGGA ATATGTACAG AAAAGACCTT 60
 TTTCTAAGAG TTGGGAGGGG GTGGGGGACT GTATAATGAA AAGAATTAGC TTACAAAAAA 120
 GAAATTGATA TTCAAAGTAT TTTAGGCAAA GCCAGTCAAA ATGCTTTCAT GATATTTTGA 180
 GATGTAAATT TTGTCTGATT TGTATTGTNC TTTTCATTG CCTTCTTAAC TTTATATGTG 240
 ACCTGAATT TCCATAACTT GATGACTATA GATTGCACCT AGGCATTCCA ATAAAAGCCA 300
 ACCCAAA 307

SEQ ID NO:4475

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05314

SEQUENCE DESCRIPTION:

GATCGTAAAA ACATGTCTTA TGCGGAACTT TCATGTCAGA TGCCTGGAGT GTGAAGTGTT 60
 CATTGGACAT TCCATTTTAC TGTTCGAAGT ATGGACTTAC ATATCAAATT AAAAGGCTCT 120
 TTTGTTCTGC AAA 133

SEQ ID NO:4476

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05315

SEQUENCE DESCRIPTION:

GATCAACTGT CCTTAACCAC AGCAGCATGA TACGCTGGNT TACCCAATCG CTTGTAAGGN 60
 AAGNCAGAGA TGACGTTATC CTGACTGCTG AGATGAGCAG TTTACCCTAG GAGGNCCNAT 120
 TNGGACTATN 130

SEQ ID NO:4477

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05316

SEQUENCE DESCRIPTION:

GATCAGCCAC ACAACTGTTT TGTACATACT TATTTTCTCA TGCACTTTTC TGTATGCAAA 60
 TAAAGCTATA AATTACTCA TTTCAATAAA CTGGAGTGGC AGAAA 105

SEQ ID NO:4478

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05318

SEQUENCE DESCRIPTION:

GATCTGGGAC AGANTTCACT CTCACCATCA GCAGTCTGCA ACCTGAAGAN TTNCAACTN 60

ANTACTGTCA ACAGAGTTAC AGTGCCCCGT GGACGCTCGG CCCAGGGACG AAGGTTGGAC 120

GTCAAACGAA CTGTGGCTGC ACCNTCTNTT TTCATCTTN 159

SEQ ID NO:4479

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05319

SEQUENCE DESCRIPTION:

GATCTGAAAA GAAGGTGAAT ATTTGCACT TTTGATACTC TTAGGAACAA ATAACTTATT 60

TGGCAAATTG TTTNTTTTT ATGTTTTGGG TGTGTGTTTT GTTTTTTGAC TTTTTTTGTA 120

TTGTGAACAG GCACTGAAGC TGATGTTATT TTAAGATTAC AGAATGGAAA 170

SEQ ID NO:4480

SEQUENCE LENGTH:73

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05320

SEQUENCE DESCRIPTION:

GATCATGTAA AATTACAGTA CTCAACCCTT CTAGCAAAGT ATTTGGNTGA AAAATAAACT 60

AAATGCCTTT AAA 73

SEQ ID NO:4481

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05321

SEQUENCE DESCRIPTION:

GATCCGCAGA GGGTGGTTGG GATACACCGG ATACCTCTGC TCTCATTGCT TGTTCCTAAA 60

TGCTCTATGG ACATTTGTGT GCTAAATCCT ATTAAATAAA AAAGACGGGT TAAAACCCAG 120

ATGCTGTAAA 130

SEQ ID NO:4482

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05322

SEQUENCE DESCRIPTION:

GATCAAATTG AGAGACAATA AGGTACATT GTTGAATAAA AAATTTTAAA GTTAAA 56

5 SEQ ID NO:4483
 SEQUENCE LENGTH:90
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05323
 SEQUENCE DESCRIPTION:
 GATCTTGAGA GTATGTTCTT ACTCATTCTT GTAATTGCAG TAGTGTAGTC ATCTGCATAT 60
 10 AGTTTAAATA AATGCATGTT AAAATTAAAA 90

15 SEQ ID NO:4484
 SEQUENCE LENGTH:58
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05325
 SEQUENCE DESCRIPTION:
 GATCACGCCA TTGCACTCCA GCCTGGGGGA CAAGAGTGAA TCTGTGTCTC ACCAGAAA 58
 20

25 SEQ ID NO:4485
 SEQUENCE LENGTH:115
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05326
 SEQUENCE DESCRIPTION:
 GATCTGGTGA CTGTNCTCTC CCTGTTTTCC TTTCTTTTGG GGTGTTTGAG GAGCANNNGCT 60
 TAGCTTGAGA CACACACAGA CACTGTGTAC TTCAGTNAAG GGCTTAATAN ACAGN 115
 30

35 SEQ ID NO:4486
 SEQUENCE LENGTH:201
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05327
 SEQUENCE DESCRIPTION:
 GATCATTCTT ATGTGTGTGG GTAATCTGGT CAGTAAGATT GAGACTTAGT TAAGATTCCC 60
 CTTGGAAATT CCTTAATGTT TATTAGCTTC TAACTAGTGT TGTAAGTCCG ATGCCAGAAT 120
 40 TTGGAGATTT GAGTTCTTCT TTTTCATGGCT TTTATTCACT GTGACTAATA AGCTTCCTAA 180
 TAAATCCTTG CCAGACTTAA A 201

45 SEQ ID NO:4487
 SEQUENCE LENGTH:274
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05328
 SEQUENCE DESCRIPTION:
 50 GATCTAGTTC GTGTATAACT GTTAACTCAT TTTACATTTT TTNCTTCGTT GAATGTTTAT 60

55

5 CAGATTATAA ATATAGAGGC ATTTCTNCAT CCTGTTTAAT GTTTATTTTG TAATCATTGG 120
 AGTATGTGAA AAATTTTNGT TTGTTTGTCT TTGGTCTCTA AGTAAACATG TTCAGCAAAG 180
 TATTNTNTT TTNAAGAAAT AAATNGNGNT TTGTATGTCC TNCCTTTTAG GTTTGAGGCA 240
 AAGAGGAGAT GGGAANCCAA AGGCAACANG GGNN 274

10 SEQ ID NO:4488
 SEQUENCE LENGTH:332
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05329
 SEQUENCE DESCRIPTION:
 15 GATCTNTGCC ATGCAGAGCA TCTTCCAGAA GACCAGGACT CTGGGAGGCG AGGAGAGCTG 60
 AGCTGGGCCA CCTGGTCTCA GCCACCTGTT CTGGCTCCC CAACAGACTC TGCCTGCAC 120
 CATGGGAGGC TCCTGGGATG TTTGGAAGAA GAAACGGGCT TCTCCTTGAG GGGGTAGTGG 180
 AGGGATTTT TCCCCAGCAG TGGCCTCTGA GAGTNNNTCA GTGCCTGGTG GGGCAGGGCA 240
 GGCCTCTTGG AGCACCTCCT CCCTGGNTCA GGGCCTGGAT GCAGGTGCCA AGCTCTCCAT 300
 20 GTGGTGCAATG TTNGACCCAG CCACGTGGTG AN 332

25 SEQ ID NO:4489
 SEQUENCE LENGTH:155
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05331
 SEQUENCE DESCRIPTION:
 30 GATCTTAACT ATGAGTAATT CACTATCAAG AGCTAATTAT TTGAAAAAT ATAAGATGTT 60
 ATGGAGCAGA TAGCTCAAGC AGTAAAAAGA AATTNTGCAA CTNTAATTCT NTTCTTATT 120
 TTAATACTAC TACTTAATAA ATAGTATTTG CTAAG 155

35 SEQ ID NO:4490
 SEQUENCE LENGTH:115
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05332
 SEQUENCE DESCRIPTION:
 40 GATCAATCA GAGATTGACA GCCTGTGGAG GGTGCTGAAC TATACAGAAT TAGACACAAC 60
 TATGTCATTA TTTTGTGAC CTACTGNTCA GAATAAAAC ACTTGAAATA TGAAA 115

45 SEQ ID NO:4491
 SEQUENCE LENGTH:197
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05333
 SEQUENCE DESCRIPTION:
 50 GATCCCTTCT GTTGGTGTCA TGTGTAAAC ATTTCTTTCA ATAACTAAA GAAAAATTAT 60
 TAAAGGAACA CATACCTTGT GTTAAATAGT CTAGACTAAA AGATTGAGAA GTTACTTTCC 120

55

ATTGCTATCT ATTGATAATT TAGACATTGA GTTCAAATTG CCTTCATTTT ATGATAAATA 180
 ATGATTTAAC TGACAAA 197

5

SEQ ID NO:4492
 SEQUENCE LENGTH:79
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

10

CLONE:HUMGS05334
 SEQUENCE DESCRIPTION:
 GATCATTTTT ATTTGTAAA TATTACCTAA CTTTACATAA ACTATATCAT AATAAACTAT 60
 TTTTGCATCA CCCTTTAAA 79

15

SEQ ID NO:4493
 SEQUENCE LENGTH:377
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

20

CLONE:HUMGS05335
 SEQUENCE DESCRIPTION:
 GATCTCCAAG CTGAACTTA CACGTAAAA CTTTGCCTG TAAGAATTTG CACATGAATG 60
 TTAATGGAAA ACACAAACT TAAGATGGCC CAAAACNAAA GCCACAAACA GTTCATCATT 120
 TGGTGCTTAG TCTTTGTAAG GGCTCTCTGT GGTTTGACTT ACTCCAGCTA CCGTTAGATG 180
 AGGGCAAATC ACCTTAGAAC ATGTTTCATT GATTCATAAC ANGGAATTT GGGTCTATGA 240
 TTTTNGCCA ATCTTAGCCT AAAAGAAATT GCTTTAGCTT CTGGTCAGCA CTGATTAAAA 300
 TGTGAATAGT GAAGTGGCTA TCCTAAACTG GTTTATCTCC ACCCACACTA TCATAGANTT 360
 CTTAGGTAAT ACAATTN 377

30

SEQ ID NO:4494
 SEQUENCE LENGTH:170
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

35

CLONE:HUMGS05336
 SEQUENCE DESCRIPTION:
 GATCAACAC ACACACCTAT ACACATACAT ATTAANATGC AGAGGATTTT AAATAATTGC 60
 AAATGTCTTG TGGCTGTTTT ATTTCTACAA AATTCTGTAA GATGTATACC AGAAAACATA 120
 ATAAAGATAA GCTCAGTTCT TCATTGGGNA AAANTATTTT TAAGNNNNNN 170

40

SEQ ID NO:4495
 SEQUENCE LENGTH:57
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05337

45

SEQUENCE DESCRIPTION:
 GATCTGTAAT GTGTCAAAGC ATTTTTCAT TTTCAAATAA AGATACCTAT AATGAAA 57

50

SEQ ID NO:4496

55

SEQUENCE LENGTH:373

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05339

SEQUENCE DESCRIPTION:

GATCAGAATC TNCCAAC TTT AGAGGTGCAA TGAAGACAC TACGCTACTT GGTGAGCCT 60
 GGTGAAGAAT GTATTAATGA GACTNCTTTG CATAAACTG GGAAGAAAGA GAAGACAGTT 120
 GGAGATGGAA GATGGTTTTN TATATATNTN GAACTTTAG TTCCTCTGTA AGACGAAAGA 180
 GGAGAGCTAT GTTTNTNTC ACATTGTCTG ATATATATNG TGTACCTGTC AGGTGAGTTG 240
 ATTTAGACAN CATAGCTGAC CTTTATGAC ANGGCAGTTT GANTAGGGNC TATTGTAATA 300
 CCCTCACACA TTATAGGGGC ATCAGAGNAT GGCCATGGNA GGGACAGTCT TACAGGGGGC 360
 TTTANGNGN CCN 373

SEQ ID NO:4497

SEQUENCE LENGTH:368

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05340

SEQUENCE DESCRIPTION:

GATCTGAAGA AGTTGCTGTT CTGAAACAGA AGTTGGAGCG ATGTCATTCT GCTGAGCTTG 60
 CACTTAACGT AATCACGAAG TAGAGGAAAG GCTATGNAGT TGATGATTAC GTCTCAAAGA 120
 AATCCAAACA TGAGGAGGAA GAATGGACTG ATGACGACCT GGTAGAATCT CTCTAACCAT 180
 TTGAAGTTGA TTTCTCAATG CTAAC TAATC AAGAGAAGTA GGAAGCATAT CAAACGTTTA 240
 ACTTTATTTA ANANGTATAA TGTGAAAACA TAAATATAT TANNCCTTN CTATTGTTTT 300
 CTTTCCCTTT CACAGTAACT TTATGTNAAA TAACCATCTT TCAAAGGGC TANAANNAN 360
 ANANNTNN 368

SEQ ID NO:4498

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05341

SEQUENCE DESCRIPTION:

GATCACATCA CCTCTCTGCC TCAGTTTCCC CATCTGTAAA ATGGGAGAAT AATACTTGCC 60
 TACCTACCTC ACAGGGGTGT TGTGAGGATT CATTGTAAAT TTTTTTTTTT TTTTAAANA 120
 GNGTTTTAAN GNNTAAAAAN CAGTNAATN 150

SEQ ID NO:4499

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05342

SEQUENCE DESCRIPTION:

GATCTCCATC ATTTCTTACA GGTTCCTC CCTCAAGCAA TTCGACATCT CAAGTGAAGA 60
 CATGGCCCT GAAGGGCAAT AAAGCTGCTA GTTTATTAAT ACAGTCAA 109

SEQ ID NO:4500
SEQUENCE LENGTH:315
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05343

SEQUENCE DESCRIPTION:

GATCTACAGG NCAAGGGGAG GGAGCAAGCC CTA CTCTGGAT GGGGCACGGA CTGTCCACCT 60
TTNCTAATGT GTGTTGTCAG CCTGTGCTGT GGCATAGACA TGGATGNGNG GACCACTTTG 120
GAGACTGGGG TGGCCTCAAG AGCACACAGA GAAGGGAAGA TGGGGCCATC ACAGGATGCC 180
AGCCCCTGCC TGGNTTGGGG GCACTCAGCC ACGACCAGCC CCTTCCTGGG TATTTATTCT 240
CTATTTATTG GGNNNNGNTG AAGAGGCATC CTGCCTGGNT GGGNCAGCCC CTTCAGCCCC 300
TTNTNCCCTN CCCGN 315

SEQ ID NO:4501
SEQUENCE LENGTH:157
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05344

SEQUENCE DESCRIPTION:

GATCAGACTG TTGCTTTCGC ATGNTGTATG TAGTGTCTCA TGNCTGGAGT TTGCTTTGTT 60
TTATAGTATC TGTACTCCTT GTATTTTTC AAGAGCTATTT TGTAACAGAGA TGATGTATTT 120
CTCCATTGAA AACACAATAA AAAAAANCA GCACAAA 157

SEQ ID NO:4502
SEQUENCE LENGTH:397
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05345

SEQUENCE DESCRIPTION:

GATCTAGTCT TTACTTTCAG TTGNTGTGA GGTCCATTCT GTTTACTAGA CGGATGTAA 60
TAAAAACTAT GCGAGCCTGA NTGANTTCTC AGCCAAATTT AGTCTGTNT CTCATCTTGA 120
TTGNTTAAAT TCCAAATTCT AAAATGATTC ANTNCACAAT AGCTCTAGGG GATGANGAAT 180
TTGCCTTACT TTGCCAGTT CCTAAGACTG TGAGTTGTCA AATCCCTAGA CTGTAAGCNC 240
TTCAAGGAGC AAGAGGCGCA TTTNCTCCGT GTCATGTAAT TNNNCTAAGG TGCTTGGCAG 300
CACTCTGTAC CCTGTGGAGT ACTCAGTACC TNTGGTTTGA NGTTGCTGAC AAGACCTGAA 360
AAAAATCCCT TAAAAANNA ACCCTTTAAG GTGTGGN 397

SEQ ID NO:4503
SEQUENCE LENGTH:84
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05346

SEQUENCE DESCRIPTION:

GATCAGACTT GTTAAGTATG CCGCAAGTAA GAGCTAATC ATTCATTCCA TGNTGCCAC 60

TAAATAAAGA GATTGAGCAA GAAA

84

SEQ ID NO:4504

SEQUENCE LENGTH:316

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05347

SEQUENCE DESCRIPTION:

GATCTNAACC CCAGACATCA AGGATAACAT CGTTGCTCAG CTGAAGCAGC TGTACCGCAT 60
 CCTTNAACC CAGGAGAGCT GGCAGCCCAT GCAGCCCACC CCCAGCATGC AACTGCCCCC 120
 TGCCCTGCCT CCCAGTAAT TGTNAATGCN ATCTTCTTCC TTCTNTTTT TATAATATTG 180
 TACATATGGA TTTTNNAGN GNTTAGATTT AACCAGCTTT TAAATCTCTC TTTNNTCTAA 240
 CAGTGTTAGA AGTTTGTNAT TCTNCAAATA TGCCTAGATT TAAAGCTGNT TTGAATTTAT 300
 GGNAAAAAAA AANAAN 316

SEQ ID NO:4505

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05349

SEQUENCE DESCRIPTION:

GATCAAAGTG TTAGGGGAAA AAAATTCCAA AAGTAGTTAC AAGCTATATC AATGTCAAAG 60
 TAAATNCACT TCATCAAAGC TAAGAAGTCA CAGGAATTGT NCTCAGGTTT TAAAAAAAT 120
 TTTNCTGAA TTCAGGAAGT GTCTTCTGAA TAGCAGCTAG CCANNTAAAG CGGTGTGTGT 180
 GTACTGCAGC TGTAGGTGAA CTTAAAAATA ATAATAAA 218

SEQ ID NO:4506

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05350

SEQUENCE DESCRIPTION:

GATCAGCCAG TTACCTTCTC CATTGTNTTA GTTCTGTCAC CCATTTCGTC AAGTGACCTC 60
 TCATCTTCTA TAACTAATA CAGGAATTCT TTCAAAGCA ATGTCTAAAA ACTCTTTTTT 120
 TTAAAGTAAC AGTTTGGTAT GTTTATTGTA GATAAATNAT TTTNAGGCC TTCATTTTAG 180
 CTAAGTTTAG AATTNATATT AGGCANCTAT GATTTGAGTG GTTATNCATT GAGTAANTTT 240
 CCACTATAAA GAATTTNATT GANCANTTGT TAAAGNATNN TGGTAATGCA TGGNCAN 297

SEQ ID NO:4507

SEQUENCE LENGTH:322

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05351

SEQUENCE DESCRIPTION:

GATCAGAGCA CTGAGAAACT CCAGAGGCTT CTGGTTCACC GCCCTGATT CACAGATGTG 60

EP 0 679 716 A1

5 GGTGAGAGGC AGAGATGGAA GTTGAATGG ACAAGCCTGC CCTCTCCTCA GCTCTCCATG 120
 GCTCTGTCTT CAGGCTGTTT CTGCAATTG ACATGAGGCC TGGCCCCAGG GAAACCAGTG 180
 GGGCCTCATC TCCTCCCTGT GCTGCTCTGA GGTGGAGCCT TCTNAGGGTC AGTCCAGCTC 240
 TGGAGNCCCT CTCCAGCTCG GTCACCAAAG CTGTCTGGTC CCAGGGCGGT GTGGAGTGAC 300
 AGGCACGGCA GCCCAATNCN GN 322

10 SEQ ID NO:4508
 SEQUENCE LENGTH:137
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05352
 15 SEQUENCE DESCRIPTION:
 GATCGCGCCA TTGCACTCCA NCTTGGGTGA CAGAGTGAGN CTCTGTCTCA AAAAATAATA 60
 ATAATNAATT AATTAATTAA TTAATAAATA AACAGTGGGT TAGTTATCTC AAAAGTGGGC 120
 TTGTTATAAA ANCNNGN 137

20 SEQ ID NO:4509
 SEQUENCE LENGTH:285
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS05353
 SEQUENCE DESCRIPTION:
 GATCATAAGA CTGTCATGTA AGAGGTGCTC TCCTGGCACC CAGAGAAAAG GAGCATCCTT 60
 ACCTCCAAAA GCACAGGGAC ACAAAGAGGA ATCTAAACAA ACAGGCCTCT NAGTTTCCCC 120
 CAGTTTATTA CATTTAGCTT GTTCACACTT TGCCCTATGA CATTNCTACA TCACTGGNTG 180
 30 CTCTTCATCA AACCTACTAT AANNNNCATT CAAGTTCAAC TGTTTCTTTG GGCCTTNNTT 240
 NNCTTATGGA GGCCCTCGTG TCGTGTAATA CTTNTATTNG GTNAN 285

35 SEQ ID NO:4510
 SEQUENCE LENGTH:327
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05354
 40 SEQUENCE DESCRIPTION:
 GATCAGCAGA GTGGAGGCTG AGGATGTTGG GATTATTAC TGCATGCAAG CTCTACAAGT 60
 CCCGGTCACC TTCGGCCAAG GGACACGACT GGAGATTAAG CGAACTGTGG CTGCACCATC 120
 TGTNTTCATC TTGCCGCCAT CTGATGAGCA GTTGAAATCT GGAAGTGCCT CTNTTGTGTG 180
 CCTGCTGAAT AACTTCTATC CCAGNGAGGC CAAAGTACAG TGGAAAGTGG ATAACGCCCT 240
 45 CCAATCGGGT AACTCCCAGG AGAGTGTAC AGAGCAGGAC AGCAAGGACA GCACCTACAG 300
 CCTCAGCAGC ACCCTGACGC TGAGCNN 327

50 SEQ ID NO:4511
 SEQUENCE LENGTH:194
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

55

EP 0 679 716 A1

CLONE:HUMGS05355
SEQUENCE DESCRIPTION:
5 GATCCTCCAC TCCAGAGCAC CTGAGAAGGC CGGGACCAGA GGCCCTGTGT GATGTGTACT 60
CCGCAGCTGT TTGGGGTGGG ACATTTCTGT ACTTCTCGAT TTGCTTATGG CTCAGCCATT 120
ACCTGTGTCA GTCCATGATT CTGTTGTAAC AGTTTAAAGA GTAAATAAAT AAAGCTGCCT 180
GATGTCCCAT CAAA 194

10 SEQ ID NO:4512
SEQUENCE LENGTH:106
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05356
15 SEQUENCE DESCRIPTION:
GATCACTTTT CCCTGTCTAA ACTCCAGGNT ACAGTATCCA ATANATCCA ACAGAACTCT 60
GGTGTCAAAG TGTAANTAAT NGTGTAATAAT AGCCTTCCCA AGNTTN 106

20 SEQ ID NO:4513
SEQUENCE LENGTH:89
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05357
25 SEQUENCE DESCRIPTION:
GATCTACCA CTGTACTCCA GCCTGGNTGA CAGAGCGAGA CCCAGACTCA AAAAAATAAA 60
ATAAAAACCC TGAATATCTT CCTTCTAAA 89

30 SEQ ID NO:4514
SEQUENCE LENGTH:366
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05359
35 SEQUENCE DESCRIPTION:
GATCTCTATA CCTCAGCTTC TTCATCTGCA AAGTGAGATA ATTGTACTAT TCTACTTTCC 60
TCATAGTGCN NTTATAACAG ATTATGATAA TATTACAAAG TACTTAATAC TTGGCATATA 120
GTATATATAT NANTATTAG TATTTTGCAA TTTGGGGATA TTGAAAATTA GAAATTGCNT 180
40 GTTAGTTCAT GCTGCACTAC CATATTGTCC TTTGGGGGCT CTTCAATGGG TGAAATTCCA 240
TTTNACAGTT TATCATGTGC ATCTGTATCA CAGGNGTATT TTGGCAAAAT GATTCTGTNC 300
CAAAAAGGAG TACTATANN NGNGGGTGCC AAATATATTG AGTCTNTTAT GGGGAAAANA 360
AATTTN 366

45 SEQ ID NO:4515
SEQUENCE LENGTH:313
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
50 CLONE:HUMGS05360
SEQUENCE DESCRIPTION:

55

5 GATCTCTGGT AAAAAGCAAC ATCTGAGAAA ATTNCTTGTT TTTAGGAACC TGTGTACATT 60
 CATACTTAAT TCTNCCAATN ATGCTTTTCA GTTTTTTGA TTAACACTCA AAAGTAACAA 120
 GTCCTCAAAA TTAGGTTTGT CCTGTTGTTT TAAGTGGACC TTTGGCAAGA GATTCTAGT 180
 GAAGCTTGAT TCTNAGTACT TTCCTCATGT ATTA AAAAGA GGCTGGAGGA GGGAACCTGG 240
 GACGTGGAGA GTGAGGAGTG ATAGCCTGAG GTTCTTGTT TGCCAACCTG GGGAAACCCT 300
 GTCTCTACTT AAA 313

10 SEQ ID NO:4516
 SEQUENCE LENGTH:73
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05361
 15 SEQUENCE DESCRIPTION:
 GATCACTAAA CTATCTCCCC TCTTGCTGAA GTTCTTTGTA GTAATAGCTC ATAAAAATT 60
 GTTTATTAAT AAA 73

20 SEQ ID NO:4517
 SEQUENCE LENGTH:247
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05362
 25 SEQUENCE DESCRIPTION:
 GATCTTTTAA AAAGAGATTA AACCGAAGTG ANTTAAAAGA CCTTGAAATC CATGACGCAG 60
 GGAGAATTGC GTCATTTAAA GCCTAGTTAA CGCATTNCT AAACGCAGAC GAAAATGGAA 120
 AGATTAATNN GGAGTGGTAG GNTGAAACAN TTTGGAGAAG NTAGAAGTTT GANGTGGAAA 180
 30 ACTGGANGAC AGAAGTACGG GAAGGCGAAG AAAAGANTAG AGAAGATAGG GAAATTNGAA 240
 GNTAAAN 247

35 SEQ ID NO:4518
 SEQUENCE LENGTH:95
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05363
 SEQUENCE DESCRIPTION:
 40 GATCGCAGAA CATACTGTAT TTTNACTATA TCTTTTTTTT TAAATCTGAC AAATTTTTT 60
 NCTTTNATTT NAATTGACAT AATTGTACAT ATAAA 95

45 SEQ ID NO:4519
 SEQUENCE LENGTH:134
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05364
 SEQUENCE DESCRIPTION:
 50 GATCTGCTTT GGAAATTAAT TGCCTCTAAT ACATACCTAA GTAAACATAA CATTAATACC 60
 TAAGTAAACA TAACATTACT TGGAGGGTTG CANTNTCTAA GTGAAACTGT ATTTGANACT 120

55

NTTNAGTNTA CTTN

134

SEQ ID NO:4520

SEQUENCE LENGTH:269

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05365

SEQUENCE DESCRIPTION:

GATCTGGCAC TGAGCTTTTT GTCAGTGAAC CTTCCCGATG CCAGCTGGGC TCTTGACTC 60
 CCCTCTTCTT CAAGGGTAGA TGAGAGGAAC GATNNNTAGA GGTGGCTGT GGGTCCTGGG 120
 TACCACCTTC TGAGCCTCAG TTCCTCATC GTAAAGTGG GGAGAAAAGT CTGTTTGCCT 180
 CAGGAGTGTG AGGACTACAC TAGTGAAAGC NCCTGGCGGG CAGCCGGCGA TGCCCAATAA 240
 ATGTGTGNTT TGCTGTTTGT TAAGTGAAA 269

SEQ ID NO:4521

SEQUENCE LENGTH:189

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05366

SEQUENCE DESCRIPTION:

GATCAGTTTG TAATTTTTTT NCTCCTGAA GGCACAAAAT AATTGGTTN AGGTATGTAA 60
 AACACTAGAG GTCAACCTTA CATAGTATAT AGAACTNATG GGTTTACCCA GCTACCCAGT 120
 AGCATAACTT TNCACAGCTC GGGGATGAAT TAACATGGCT GAAATAAAAC TAAAAGTATG 180
 GTTTTNAAA 189

SEQ ID NO:4522

SEQUENCE LENGTH:79

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05367

SEQUENCE DESCRIPTION:

GATCACAGTA CACCATATGC ACTCTGGTAC CTTAATTTTT TTTTATAAAT AATAAAAGTG 60
 AATATTGAAG CTTCTTAA 79

SEQ ID NO:4523

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05368

SEQUENCE DESCRIPTION:

GATCTGTTGA ATTTGGGAAG CCTCCAGTTT TAATAAAATT TTTTATTAT GGTGGAAACN 60
 TGTCTGTAAA NCTTAGGACT ATAGAAATGC AAAGAATAAA GANCTGAGGG AGTTACACAC 120
 ATTTGTAGTC AGAAATTAAG TTCAAAAANAT AATTAGGTC ATTTGCATTT TTTAGTATGC 180
 AAAATAAATG GAAAANTTAA NGTGCAATAN ANNTATAATT NGGGAAATGA ATGCAGTAAA 240
 NTTGANAACA TTGAN 255

SEQ ID NO:4524
 SEQUENCE LENGTH:51
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05370
 SEQUENCE DESCRIPTION:
 GATCTGTCAG GGCCACTTAG TGATAATAAA TTCTTCCCAA CTGCAGACAA A 51

SEQ ID NO:4525
 SEQUENCE LENGTH:353
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05371
 SEQUENCE DESCRIPTION:
 GATCCGCATC GACTTGGCCG TGGGCGACGT GGTCAAGACC TGGCGTTTCA GCAACATGCG 60
 CCAGTGGAAAT GTCAACTGGG ACATCCGGCA GGTGGCCATC GAGTTTGATG AACACATCAA 120
 TGTGGCCTTC AGCTGCGTGT NTGCCAGCTG CCGAATTGTA CACGAGTATA TCGGGGGCTA 180
 CATTTCCTG TCGACGCGGG AGNGGTCCCG TGGGGAGGAG CTGGATGAAG ACCTCTTCN 240
 GCAGCTCACC GGGGGNCATG AGGNCCTCTG AGGGCTGTTT GATTGCCCTT GCCNTGCTNA 300
 ACAACCTGTN ACAGGCACTT CCAAGGCCAG AACCACAGGG GCTNACTNTC GAN 353

SEQ ID NO:4526
 SEQUENCE LENGTH:174
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05372
 SEQUENCE DESCRIPTION:
 GATCTGGAAT AATTATGGTA AAATAATAGT ATTTGCTAAG ACTAGATGAT TGGTGTACTG 60
 GATTTCATCC GCTATTTTCT AAGTTTGTTA TGAACGCTTA AAATATATAT GTATGTAGTA 120
 AAATTAATGT AAATTTGTAC AAATAAAAT AAATGGCATG TGATATATGG CAAA 174

SEQ ID NO:4527
 SEQUENCE LENGTH:201
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05373
 SEQUENCE DESCRIPTION:
 GATCATGTGT TTGGGGGCTT TTAGGGGACC CAGCTGCACT GGGGCACTGC CCGTGGCCTG 60
 GGTAGGACAT TTCCAGCAA GGGCTGGAGG AGTTGCCGTG CCTTCAGCCT GAATCGAATG 120
 TCAGAACCAAG CCAGCGGTGC TTCACCTCT TGGGGATAAC TTGCTTAGTT TTTTAATAAA 180
 TGTTCCTGGT TGGTTTCAA A 201

SEQ ID NO:4528
 SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05374

SEQUENCE DESCRIPTION:

GATCTATGAA GCCCACCAAC AAGGCCGAGG GGCTCTGGAG GCATTGCTAT GTGGGGGACC 60
 CCAGGGGGCC TGCTCAGAGA AGGTGTCAGC CACAAGAGAA GAGCTCTAGT CCTGGACTCT 120
 ACCCTCCTCT GAAAGAAGCT GGGGCTTGCT CTGACGGTCT CCACTCCCGT CTGCAGGCAG 180
 CCAGGAGGGC AGGAAGCCCT TGCTCTGTGC TGCCATCCNG NNNGGNTCCT CCAGCCTCAG 240
 GGCACTCGGG CCTGGGTGGG AGTCAACGNC TTCCCCTCTG GACTCAAATA AAACCCAGTG 300
 ACCTCAAA 308

SEQ ID NO:4529

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05375

SEQUENCE DESCRIPTION:

GATCTTCTGA GCTTGTTTCC CTGCTGGGTG GGACAGAGGN CAAAGGAGAA GGGAGGGTCT 60
 AGAAGAGGCA GCCCTNCNTT GTCCTCTGGG GTAAATNAGC TTGACCTAGA GTAAATGGAG 120
 AGACCAAAAG CCTCTNATTN TNAATTTCCA TAAATGTGA GAAGTATATA TATACATATA 180
 TATATNCCTN TAAN 194

SEQ ID NO:4530

SEQUENCE LENGTH:314

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05376

SEQUENCE DESCRIPTION:

GATCTTGATT GATAACTGCC ATGATATTTT GCTTTGATGT GTTTCTACAT GTGGTTGCAC 60
 ACGGTTCACT AAAAATAATG CTGCTATCGA GTATGCAAAT ATTGAAGTAT GATGGTTTGA 120
 CTGTATGGNA GTGTTGTAGC AGCCTCTTGT TTTTTTCCCC ATTGCCTCTT TTTTAAAAA 180
 ACTTATAAAG TCACTNTTNA TTTTNCCTCA GTCTTCAATG ACGAGAGCAA TATTAAGANG 240
 ACATTGCTAT CTAATNNTNA ATCTTNTTAA ATGAAAAATT CCTATGTTCA GTAGCGTGGT 300
 TGATGCTATT GTGN 314

SEQ ID NO:4531

SEQUENCE LENGTH:182

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05377

SEQUENCE DESCRIPTION:

GATCGAGTCA GCATAAATTT CTAAGTCAGC CTCTAGTCGT GGTTCATCTC TTTCACCTGC 60
 ATTTTATTTG GTGTTGTNT GAAGAAAGGA AAGAGGAAAG CAAATACGAA TTGTACTATT 120
 TGTACCAAT CTTTGGGATT CATTGGCAAA TAATTCAGT GTGGTGTATT ATTAATAGA 180
 AA 182

SEQ ID NO:4532
 SEQUENCE LENGTH:314
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05378
 SEQUENCE DESCRIPTION:
 GATCATGAAA CTGGTTTCTG TTTTATGCAG TTGTCATTG TAAAGNCTAA TAAAAATATNC 60
 TCTATAATTN CTCTAGATT ACAAAAAATAT GACAATCTTG TAAGTAGCAG ACTATGGAGA 120
 AAAATGAGTT ACCTGGNGGG TCAGGTAACT TGCCAAACTN AAANGTNTGT TAGTTGAGGC 180
 AAAGTCCTAA GCAAGGTTGT GCTATCANGG CTCAGCATAC CTTCGTGGGC CTTTGANTTA 240
 CCANCACTGG AANTGCCTGC CANCTAATET GGGGTAGATT CTTTAAGGCA TTCCACTTAG 300
 CTTGCCAGTT GNGN 314

SEQ ID NO:4533
 SEQUENCE LENGTH:311
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05379
 SEQUENCE DESCRIPTION:
 GATCAACTAA TAGCTCTGCT AGTAATTGAT TTATTTTNC TCAATAAAGT TGCATAAACC 60
 AATGACTTAG CTGCCTGGAT TAATCAGTAT GGGAAACAAT CTTTGTGAAA TGCAAAGCTG 120
 TTTTNGTAT ATACTGTTGG GATTTGCTTC ATTGTTTGAC ATCAAATGAT GATGTAAAGT 180
 TCGAAAGAGT GAATATTTTG CCATGTTTCA TTAAGTGCA CAGTCTGTTA CAGGTTGACA 240
 CATTGCTTGN CCTGATTAT GCAGAATTAA TANGCTATTT GGATAGTGTA GCTTTAATGT 300
 GCTGCACATG N 311

SEQ ID NO:4534
 SEQUENCE LENGTH:330
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05381
 SEQUENCE DESCRIPTION:
 GATCGGAGGA CGACCCGAGT CCAAGAGTG GGGTTTTGCT TTTTAAAAG AGAGAGGAGG 60
 GGTGATGGCA GGGGAGTGGA GGGTGGCCGG GCAGGTCCTG CCGGCGCAGG GAGCCCTCTG 120
 CCCTTCACAC TCTCTCCAA AAGAGCCTCC ATCTGTAAGG AAGCAGGTCT CCGCGAGGGG 180
 TTTCTTTCCA TGTNTTTTCC TCCTGTNGTT TTAGAACTTT TTNGAAAAAA ACNGNCCTCG 240
 TTTTAGATTT ATAGCATTGA CTTTACACA CATTACACA AGANAAAAAT CCTTNCAAAA 300
 TTCTTAAANT NNNCTGGTNC CNNCTTTNNN 330

SEQ ID NO:4535
 SEQUENCE LENGTH:204
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05382

EP 0 679 716 A1

SEQUENCE DESCRIPTION:

GATCTCAGCT CCCGTTCCCC AAGCACACTC CTAGCTGCTC CAGTCTCAGC CTGGGCAGCT 60
 TCCCCCTGCC TTTTGCACGT TTGCATCCCC AGCATTTCTT GAGTTATAAG GCCACAGGAG 120
 5 TGGATAGCTG TTTTACCTA AAGGAAAAGC CCACCCGAAT CTTGTAGAAA TATTCAAAC 180
 ANTAAATCA TGAATATTTT TAAA 204

SEQ ID NO:4536

10 SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05383

SEQUENCE DESCRIPTION:

15 GATCACTTGG AGACTCTTTT TTTGCTGGTT TCTAGATAAC TCAGGTAAAT CAGACCTTTA 60
 CAGAGTACAG GGCTAGGTGA NAGANTTACT GANAAATCAC CTTGAAAATC CGANGGGCTG 120
 ATATACCCCTT NNTGTN 136

20 SEQ ID NO:4537

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05384

25 SEQUENCE DESCRIPTION:

GATCTATGCT GTGTTTGCTT ATTCTTTAGT TGAACACACT ATGAAGAATT CCAGGTGTAC 60
 TAGTGAATGT AATTATAGT TGCCAAA 87

30 SEQ ID NO:4538

SEQUENCE LENGTH:305

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05387

35 SEQUENCE DESCRIPTION:

GATCGACAAC GAGGCCCTCT TCAGCTGCGA GGTCAAGCAC CCAGCTCTGT CGATGCCCCAT 60
 GCAGGCAGAG GTCACGNTGG TTGCCCCCAA AGGACCCAAA ATTGTNATGA CGNCCAGCAG 120
 AGCCCGGGTA GGGGACACAG TGAGGATTCT GGTCCATGGG TTTCAGAACG AAGTCTTCCC 180
 40 GGAGCCCATG TTCACGTGGA CGCGNGTTNT GAGCCCGGNN NNGGACGGN AGCGCTGAGT 240
 TCGACGGGAA GGANCTTGGT GCTGGAGCGG TTTCCCGNCG AGNTCAATTG GCTCCATGTA 300
 TTNGN 305

45 SEQ ID NO:4539

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05388

50 SEQUENCE DESCRIPTION:

GATCATAAAA TGAATTCTTT ATTGTATCTA CACACTCCAC ATTCTTTACT GTGTCCTACT 60

55

ACTGTATCTT GGCTCCANTG CTGTATTAAA CACCATCTTA AGCAAA 106

5 SEQ ID NO:4540

SEQUENCE LENGTH:167

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05389

10 SEQUENCE DESCRIPTION:

GATCCTCCTT TGCATGCAAC TGTAGCTGCA TTTAATGAAT AGTTTGAACC CTTGTNAATN 60

CATTTTTTNA AAAAGAAAGA AAAAAAAAAAC TTCGTGTATG NAACTCAAAG CATGNAACCT 120

TAAGATGTTG CATTCTAAAC TNACANTAAA GACCTTTCCC AANTAAA 167

15 SEQ ID NO:4541

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

20 CLONE:HUMGS05390

SEQUENCE DESCRIPTION:

GATCCATACG TGGCCGCACC CACACAGCAC GTGCTGTGAC NGATGGCTGA ACGGAAAGTN 60

TACACTGTTT CTGAATATTG AAATAAAACA ATAACTTTT AATGGTANAA A 111

25 SEQ ID NO:4542

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS05391

SEQUENCE DESCRIPTION:

GATCAGTTCT GCAAGATGCC CATCAACAAC AAGATGGCCC AGTGGGGCAA CAAGCCTATA 60

TGCTGAGCAG GAGGCAGACT TGCAGAGCTT GTTTTGTTC ATCCTGTCCG TAAGGGGTCA 120

35 GCGCTCTTGC TTTGCTCTTT TCAATGAATA GCACTTATGT TACTGGGTGC CAGCTGAGTT 180

TCTCTTGGGT ATAAAGGCTA AAAGGGAAAA AGGAAA 216

40 SEQ ID NO:4543

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05392

SEQUENCE DESCRIPTION:

45 GATCGAAAAT AGTTGGAAAA AAGAAGAAGA GTTGCATCTC TACTGAACAT GTACAGACTT 60

TCTTCTTCTT ATTATTCCCT AAACAATACA GTGTAAAACT AAA 103

50 SEQ ID NO:4544

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS05393

SEQUENCE DESCRIPTION:

5 GATCAGAACA NTNCAAAAAA TTCACACCCC CAAAAAAGNC AAGCTATTAT ATGGCAATTT 60
 CGTGATAAAA TATTCATCCT ATTTGTCCTG CATTCTAAT TTCCCGTAA CTAGACACAT 120
 CAGTTTATA ATTAGGGNAA AAATACCTTN TAAAAGTAAA GCGAGCANAG GTTCNNTTG 180
 CANTGTTCAT TCCN 194

SEQ ID NO:4545

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05394

15 SEQUENCE DESCRIPTION:

GATCTGGTAG GTTGCAGCAG AGAAAATAAA TGTGACTTGN GAGNCCACTC AGAGAGGGTC 60
 CAAGGGTGAT GGAGAAGGAA GCATGGCCTG GNAGCTTGGA AGGNANGN 108

20 SEQ ID NO:4546

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05395

25 SEQUENCE DESCRIPTION:

30 GATCTGCTCT TGCAATGGCC TCACCATCTG GNAGGAGCGA GGCCGGCCCA TCGTTGGCAA 60
 GGGCCGAAAG GAGTCAGCGC ANCCCTGCC CACCTTTNAG CAGGACCTCA CCTTGGCTCT 120
 GTTGTGTCC TCCAGGGCGA GCACTTTCCA CTTCCAGAGG GGGCCAGAGG GACTTTGCCT 180
 GCCCAGTCTT TGGAGAGCTC AGTACAGGGC AGGAGCTGCT GTGGTGTTC CTTGGCAAAT 240
 NAAAGTTTA TTTTCGTTG GGNAAA 266

35 SEQ ID NO:4547

SEQUENCE LENGTH:72

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05396

40 SEQUENCE DESCRIPTION:

GATCTCCGTG TGTGCATGTN ACTGTGCTGG GTTGAATGT GAACAATAAA GAGGAATGTC 60
 CAAGTGTTCA AA 72

45 SEQ ID NO:4548

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05398

50 SEQUENCE DESCRIPTION:

GGTAATGAGT GAGTTCTTAA GAAATCTGGT CATTGAAAAA TAAA 104

55

SEQ ID NO:4549

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05399

SEQUENCE DESCRIPTION:

GATCTTCACA TCTTGGACCT TNGTCAGTTT TGCTATTCAT TATTAAACAC TAAAACTTTG 60
GCGGTTNTTG CAAA 74

SEQ ID NO:4550

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05400

SEQUENCE DESCRIPTION:

GATCTGAAAT CACATCCAGC TCCTGATGTT TTCTTCTCCC TCTGACTGCA GAGGAAGTGT 60
TCCTACCTGC AGGAAGGCAC CTGTACACACA GGGCGTTCAC TCAGACCATC TGTGCTCTGC 120
CCTGAGTTCA GTTGAGAAAA TCCTATTATC AAATTGGNT TTCCTGGCCC CAGAACTTCC 180
CAAAGACCTG TAAATGGAG GGATTACCA CCTCACATAT GTCCAGTTAA ACAGTTTGTG 240
GACTTGTAAC CGTCGCAGCC CANTGGTACA ACAGTAGTTT AATCACGGGA AA 292

SEQ ID NO:4551

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05401

SEQUENCE DESCRIPTION:

GATCGGATGG GCAAGTCCCT GCCAGGGTCT CCAGATGGCA ATGGAAGCTC CTCCTTGCCC 60
CACTGGGAGT AGCGGGCTAAA GCTGGGGGAT AGAGGGGCTG CAGGGCCACT GGAAGGAACA 120
TGGAGCTGTC ATCACTCAAC AAAAAACCGA GGCCCTCAAT CCACCTTCAG GGCCCGGCCC 180
ATGGGCCCCT CACCGCTGGT TGGAAAGAGT GTTGGGTNGT TGGCTGGGGG TGTCAATAAA 240
GCTGTGCTTG GGGGTCGCTN GGAAA 265

SEQ ID NO:4552

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05402

SEQUENCE DESCRIPTION:

GATCTATGCT CTTTCAAATG GAGACTGGGA TATTGTTGTT TTAAGACCAC TGTTTTCCTG 60
TTTCCTCCCA AATNTTAGTC ACATATATNA TTACCCTTAA GTTGGTCACT ATCTATCTAT 120
CTGTCAATAA TTCAGGATTA AAGTTTGAAG TGTAATTACA TTTGANTTTT AAA 173

SEQ ID NO:4553

SEQUENCE LENGTH:270

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05404

SEQUENCE DESCRIPTION:

GATCGACCAG CAGGTGGTCT ATATCCATCC TTCCAGTGCC CTCTTCAACA GACAGCCAGA 60
 ATGGGTNGTG TACCATGAGC TNGTGCTCAC CACCAAGGAA TACATGCGTG AAGTTACCAC 120
 CATCGACCCT CGGTGGCTTG TGGAGTTTG CCCAGCCTTN TTNAAGGTCT CAGACCCANC 180
 TAAGCTAAGN AANCAGAAGA AGCANCAGCG TCTTGGNACC GTTGTACAAC CGNTATGAGG 240
 ANCCCAATGN CTGGGAGAAT ATCTCGGNGN 270

SEQ ID NO:4554

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05406

SEQUENCE DESCRIPTION:

GATCGGGTTG AGCCAGGAG GTTGTGGCTG CAGTNAGCTG TGATGTGCCC TTATGCTATA 60
 GCCTGGGCAA GAGCGTGAGA CCCTGTCTCA AAGAAGAAAA AAAGAGAAAA ATAACCTCTT 120
 TGAACAAACA GNCAAATTAG CTAGTAGTAT GGAGATGTAT ACCCTCTATT ACACACATAA 180
 AACCGTAACA AAATTCATTG NGGTGTATTA TAGTTAGTTT TGGAATAGA GAAATAAAGC 240
 ACTGATGNTT AANNTTGTT ACAGTGACTT TTAGAAGGNN TTNNTTGNTG GTTCACATTN 300
 GTCAGAANTT TTTTCCNNC NNGGCTGGTT CAN 333

SEQ ID NO:4555

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05407

SEQUENCE DESCRIPTION:

GATCTCCCC TTCCCTTGNG GGGCACAGCT GGCCTGGGCC TCCAATCCTG CGGANTTTCC 60
 TGGGTGTGGC TTGACCTCA GAAGTGGCTC TGGTTTGGCC TCAGGAGTGT GGCCTGGCCC 120
 AGCCTGTGTC AGCCTCCTGT GGNNGGCCCT TNATGCCACT AATCCCCNGA CCCCCGGAT 180
 NTTNCAAAC GNACAGACAC ACGNATTGTT AAGGCCGCTT ANGGCCTCCA GCGTGCACTC 240
 TTNTTTANGN 250

SEQ ID NO:4556

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05408

SEQUENCE DESCRIPTION:

GATCAATGCA NCGACGTNGG GCTCATGGCC TACCTCGGCA CCATCACCAA AACGNGCAAC 60
 ACCATGAACC ATTTTGTGAA CAANTTCAAT GTCCTCTACG ACCGACAAGG CATCGGCAGG 120
 AGAATGCGCG NGCTCTNTT CTGATGAGGG TACTTGAAGN GGCTGATGGA CAGGGGTCAN 180

NGCAACTATC CCAAAGTGA GNGCACTACA N

211

SEQ ID NO:4557

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05409

SEQUENCE DESCRIPTION:

GATCTTTTT CCATTGGTTA AACATTTAAC TCCATGNCAG ACCTTGTTTT AACCCCTCTC 60
 ACATCATGTT CTTTCCTTTT TTGCGAGTTA TTTTGCATTA ACCAACTTTG TCAGTGACAG 120
 ATGCGTATCT GAGGGTGTCA CACACGACCN TCAGCAGGGA AGACTTCTGG GCCATGGAGG 180
 GCCGTCTAAT ACATGGACTT ATAAACTGAC TGCNTGGGCA ATGAAAAGGC CAAATTATTC 240
 TGAATTTTT TNGAATCACT GTAAAAAAC TGATTNTTN NTGTATAGAG ANCACTTAAA 300
 CGGTGGAN 308

SEQ ID NO:4558

SEQUENCE LENGTH:175

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05410

SEQUENCE DESCRIPTION:

GATCCAGCTG GCTCATCCCA GCCCAGGTGG GCCAATTATT CAATTTTNA GAATTTTGTT 60
 GCAAGCCAGT TGTCAAACAC AGCCATTATA ATTATGTAAA TTTGCAANT ATGTTAAAAA 120
 CAAGGACAAT AATATTCAA AATGCATCCC TAATTACTAC ATTTGACCAC GNAAA 175

SEQ ID NO:4559

SEQUENCE LENGTH:178

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05411

SEQUENCE DESCRIPTION:

GATCTTNACA ACTGTTTAAT CAGTTTTATT TTTGTACAGT ATTAGTGACC TAAGTNATTT 60
 TGCTGTCCCG TTTTGTAAA TCAANTGAAA NTATAAAGA GGCTTGTGAC AGTAGGTATT 120
 TTGTACATAT GTATATATGT TGTCCAAATA AAATTAATAA ANTGGTNAAA GGCTGAAA 178

SEQ ID NO:4560

SEQUENCE LENGTH:77

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05412

SEQUENCE DESCRIPTION:

GATCTTCAGC ATCTTTTACT TTCACCAGCG TTTCTGGGTG AGCAAAAACA GGNAGGCAAA 60
 ATGCCGCAAA AAAGAAA 77

SEQ ID NO:4561

SEQUENCE LENGTH:203

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

5 CLONE:HUMGS05413

SEQUENCE DESCRIPTION:

GATCCAGGA ATATTGTAAT TTTCTAACT TTAATCTGCA TTTTGTATAT CTGGCCTCTA 60
 TTGCCCTTGA AGGTGAAGAT GAAACTGTCT TTAGAAGATA TCTCTTTGAT TCTGTGATAG 120
 AAGTCCCTCA CATCTTGTAT TAATTTTATG TATATATCAA CGGTGGTTGG TCTTTAAAAA 180
 AATAAATCAA AAGAATANGT AAA 203

SEQ ID NO:4562

SEQUENCE LENGTH:352

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05414

SEQUENCE DESCRIPTION:

GATCAACCCA CATTAGAGTG TCTAAGGACT CCTGAGAATT CCTGTTACAG TAAACAAAAC 60
 TAACGTAATC TACCATTTC TACTACTTTT GAGCATGGAA ATCATAGTCC CCACTCTGTG 120
 AAAACTTAAC GCTTTTGGGA AGACATTCT GTAGCATGTC AGTTTGGAGA AATGATGAGC 180
 TACGCCCTGA TGAAGAACC GTGTTGGTGC TGCTAAGTTT AGCCATTATG GTTTGNGCCN 240
 TTNTCTNTCT TAAGGCCTTA TTCTTTCAAC TAAAAAGNTG GGGGATTNAG GNGCCAAGGN 300
 AGNTTGGGGG GGGGNTNNTG NAAATTAANT TTTNTTGAGG GGTNGGCNTA GN 352

SEQ ID NO:4563

SEQUENCE LENGTH:210

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05415

SEQUENCE DESCRIPTION:

GATCCGCAAC CTGGACCCCA GTGAGAGGCG GTGGGCTGAC TGGGAAGNAG AGGCCCCCAA 60
 CCTACTCAGG ATTTNCACGT GTGAACTAGG CTGCCTGTGG GGTGCCCTT AGGCTTGGAG 120
 AGCCCCAGAT TGGAGGCAGA CAGACTGCAC CACCCCTTCC CCCCCTGCAT CTCAAGAATA 180
 AAGCAAGCTG CCTTTGTACT TGGTTGNAAG 210

40 SEQ ID NO:4564

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS05416

SEQUENCE DESCRIPTION:

GATCANATAG TTGCTGTTTT GTAAATGTA ATGTATATNT GGTTTTAAGT AAAATAGGGC 60
 ACCTGTTTCA CAAA 74

50 SEQ ID NO:4565

SEQUENCE LENGTH:303

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05417

SEQUENCE DESCRIPTION:

GATCCAGAAA CTGAGAAGCT TATCCGAGAG AAAGATGAGG AGCTGCGGCG GATGCAGGAG 60
 ATGCTACACA AAATACAAAA ACAGATGAAG GAGAACTATT AACTGGCTTT CAGCCCTGGA 120
 TATTTAAATC TCCTCCTCTT CTCCTGTCC ATGCCGGCCC CTNCCAGCAC CAGCTCTGCT 180
 CAGGCCCTT NAGCTACTNC CACTTCGCCT TACATCCATG CTGACTGNCN AGAGACTNAN 240
 GNGGCANTAA AGTTTAATAA ATCTGTAGGT GGCNNANAGA AAAAGAAAAA AACAAAAANA 300
 AAA 303

SEQ ID NO:4566

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05418

SEQUENCE DESCRIPTION:

GATCGTGTTT TAACTTTTTC TTTTCCTGTT TTTATTTTGG TATTAAGTCG TTGCCTTTAT 60
 TTGTAAAGCT GTTATAATA TATATTATAT AAATATATNA AAAAGGAAA 109

SEQ ID NO:4567

SEQUENCE LENGTH:303

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05419

SEQUENCE DESCRIPTION:

GATCTGGAGG CAGCAGTGCT GGATGGAATT GTCTAGGCTG TGGCATGTTG GTTTTGTCTT 60
 TCTTTTCTCC TTTGATTATG TAAGAGCTAT TTCATTATAA CTTATTATGG TGATTATACA 120
 GGCAAGAAGA CAAAAAGGAG AGAAAAATGA CCTCTTCTAC TGGAATAATG TTTATGATTA 180
 CAAGTGAGAT AAGGTATTTT NATCAATATG AAGGCAACCT TGGCTGATAA AACCTCTATA 240
 GTGAATACTC ACATCTTTNA CTTCACTCAC TATCAATAAT AAATATATTT NCTGACAANG 300
 AAA 303

SEQ ID NO:4568

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05420

SEQUENCE DESCRIPTION:

GATCTCTTTT GTAGAGGATT TCAATGTATT TCTTIATCAT TTGAGTGTGT GTGTGATGGA 60
 CGAATATGTG TGTGAGTTTG AGAAGCATAT CGTTCGTGTC CAGTTACTTT GCAAATTTGT 120
 GGACATTTGT GATTGGACAG AGGGGTTTGT GCTGTGGCCT AACACTTGCC AAGTGAGGTG 180
 TAGGTTATGC CTATATGCAA ATTAACCTTC ACCTTTCTTG AATATTCAAA 230

SEQ ID NO:4569

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05421

SEQUENCE DESCRIPTION:

GATCCCCAAT TGACTCAGAG TTTGAGGAGT TAGTATCACA GAATTAGATT TTTTAAAGC 60
 ATTTGTACGT TTCCATTCCC AAATATGTAG CTGTGGTTCT TGAAAACACA TCCTACATTG 120
 CATATGGGCA TAGCAGTTTT TGACCCAGGC AGAATAAGTT AATATTTAAT TAAATATTGC 180
 TTTGAAGATG GCGCTCTGGG CATGAGCATG GGGCTCCATG ACTTCCCTTC TATCCCCATG 240
 AGCCCTCCT NCATCCAGCG ACAAGCCATG GGCATGCATA CAATGCAGCA AGACCAACAC 300
 ANGNCAATA TTGAATTGGN TCATTCTATC TAAAAATTAC ATGGGNGGG ANGTH 355

SEQ ID NO:4570

SEQUENCE LENGTH:353

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05422

SEQUENCE DESCRIPTION:

GATCAGAAAT AAACGACAAA TAGTGTGAGA TGTGTTGTGA ACAGGCATGG TGACCGTGGT 60
 CAGCGCCACT CTTGTTTCTT GAAATGTGCT TCTAAGACAG AAAATGTATT TNCTCATCAA 120
 GGGTGTCTGG AGACACAGAC CGTGACCTTG GCGCANGGTG TGCATCAGAG GCGTGTGCTG 180
 AGAAGGGTGG TGTTAAGCTG TGGAAAATGA CTCAAGAGCA ATAAATCAGT GCCAAAGCTT 240
 CCCTGCGCAT CTGAATAGNC ACAAGTGAAG CCCGTGTGCG CACAGTGCAG AGGCCNAGNC 300
 TGTATTCCA GGTAGNGTGG CTTTATTTGA CTGTGAATCC ATTTACCTGT TAN 353

SEQ ID NO:4571

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05423

SEQUENCE DESCRIPTION:

GATCGGGTCT ATTCACCCA ATAGTCACTT GTGTGTCCC CGAAATTGGG ATGGGTGAGC 60
 ACCCTTGCTG TGGTGTAAC TTCCTGTTAT TTAATCTCCC CCACGGTTTC ATTTTNTNT 120
 TCTGTTAATA CTTAGAACTT TCTAAGAAAC TCCATGAAAT GAGGAAATAC TGTTTCTAAT 180
 AATATGAGGA AAGANGTAAA ANTGTTCATT CCANGTGGCA AGTCTTATTG GACACATTTT 240
 ANATAAGNTC ATGCATACCT GATAAA 266

SEQ ID NO:4572

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05424

SEQUENCE DESCRIPTION:

GATCGCCCCG ATGAGGTGCT GCTGTGCTCG GACCTGGTCA AGGCATACCA GCGCTGCGTG 60
 AGCGCCGCCG ACAAGGGNTG AGGAGCAGAC ATCATTCCCT GCCCTGGCAG TGACTTGGAG 120

CCCTGAAGAA GGGCCAATCA TGGGACCACA GCCACTGTGC CCTGCCGTTT CCTGCTGGGC 180
CCCTGCATAT GCCCCTGAGC CTGGGGCTGC CACGTGTTA GGAAACAAAG TATGCGCTAC 240
TGTCTGAAAA CAAATAAAGC AGATGCCTTT GTTTTCAAA 279

SEQ ID NO:4573

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05425

SEQUENCE DESCRIPTION:

GATCTAGGCC AGTGGCTGCT TGTCTTGTG GAGCTGTGTG TNTNCTNCTN TAAGCAGCTC 60
CTCCCCGGAG TCCCCAGCA CAGTCCCAGG AGATGACAGG AAGGAAGCAC CAGGGCAAGN 120
CGGACGNTCA N 131

SEQ ID NO:4574

SEQUENCE LENGTH:413

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05427

SEQUENCE DESCRIPTION:

GATCTCACCT TCCACCTCCT CCGGGAAGTC TTGGAAATGG CCAGGGCCGA GCAGTTAGCA 60
CAGCAAGCTC ACAGCAACAG GAAACTCATG GAGATTATTG GGAAATAAAA CGGTGCGTTT 120
GGCCAAAAAG ANCTGCAATT TAGCACAAAA AAAATTTAAA AAAATACAGT ATTCTGTACC 180
ATAGCGCTGC TCTTATGCCA TTNGTTTATT TNTATATAGC TTGAAACATN GAGGGAGAGA 240
GGGAGAGAGC CTATACCCCT TACTTAGCAT NCACAAAGTG TATTCACGNT GCAGCAGCAN 300
CACANTGTTA TTCGTTTTGG NCTTCGGTTT NGTTNCCGGG GNCAGGTGTT TTTATTAGTG 360
GNGTTTTTAA AAGGNGGNTN GTNGGGACCC TGTGGAGNA NAANC GGTTT TGN 413

SEQ ID NO:4575

SEQUENCE LENGTH:55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05428

SEQUENCE DESCRIPTION:

GATCAGCCA CTGCACTCCA GCACCCTGGG CGACAGAGTG AGACCCTGTC TCAAA 55

SEQ ID NO:4576

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05429

SEQUENCE DESCRIPTION:

GATCTGGCGT TGCCAGGCAT TCTGTAAGGG AGGGCTTTTC CAGTTCCTGG AAATGGAAC 60
GGAAATNTG GCTGGAAACA TTAATATGGC TGGAAATGGA AA 102

EP 0 679 716 A1

SEQ ID NO:4577

SEQUENCE LENGTH:420

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05430

SEQUENCE DESCRIPTION:

GATCCAAGCT GCTTGAGGGG GTCAACCTTG GACCAAAGTT GCCTTAAGCC TGTGGTAAAA 60
GGGCTTCAGG GAAGGTAAGT GGGCCANCTG CTGGAAGCTG CCAGCTGCCC GGNTGGCAAT 120
GGTGTGAGTG TCTTGGCCCT GTCCCTGCCC TGGGGTCCAG CAGGTNATCC CTCCTTCTT 180
CTCTCTCCTT TGGCGTTTGT TCCTGTAGTC ACTGGGCTAA TCTCCCCCTA GCTTGAAGCT 240
GTACATAGGG CCTCCNAGTG CAAATGNTNC TGNCCATACC GTGCACCCTT AGAAGCCTGC 300
GTGTGCATAG AGCGCCCNNT ACTTNCCAGT TAANTTCCNA GTTCTTGTTN CNTGAGCTTG 360
GTATTTTGTC ATGTGNCAAA TTCTGACTTT TGAAGGTTGG GNAAGTGAAG GGAATTNAN 420

SEQ ID NO:4578

SEQUENCE LENGTH:307

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05431

SEQUENCE DESCRIPTION:

GATCTGGGAC GTCCACGAGT GAGGGGCTGG CCACCCAGCC CGACAGCCTT GCCTGACCAC 60
CCTCCAGCAG ATAGACGCCG GCACCCCTTC CTCTTCCTAG GGTGGAAGNG GCCCTGGGCC 120
GAGCCTGTAG ACCTATCGGN TCTCATCCCT TGGGNTAAGC CCCAGTCCAG GTCCAGGAGG 180
NTCCCTCCCT GCCCAGCGAG TCTTNCAGAA GGNGTTTAA AGGGTTGCAG GTNCCNACCA 240
CTGACCCCTC CCGGNTGGCC TNCTTGCNCA GCTTANAANC TTAAAGTCCA GNACGCAGTA 300
ACCTNTN 307

SEQ ID NO:4579

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05432

SEQUENCE DESCRIPTION:

GATCCCTCTC CAAAGTGGTT GTCTTCTNT ACCTTGTC TTCTCTTGTA AAAATGAAAC 60
TCAAAAATAA AATAATGTG TCAAATTTG AAAAAAANG AAAACTGAAA AAGCTAACAT 120
GANTTGTGTG AAATTGCATA ATGCTGTANT GCTAATCTAC AATATGTAAT GCTATCTTGT 180
ATGTNGNATT TGTTAATGCA CCACACAAGT GCAANGTAA GACTGATTCA CNTTGNNNN 239

SEQ ID NO:4580

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05433

SEQUENCE DESCRIPTION:

GATCTGACTG TACTAAATAT GAAAAATAAA GCAGCACATA CTTTCTCTAA A 51

SEQ ID NO:4581

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05434

SEQUENCE DESCRIPTION:

GATCCATATA ACTGTTGGGT GCATCAGTGC TTTNAAAGG GGCTGCTTAC TATAGGGTTA 60
 ACTATGTATA TNCATTGTTA AGAGTTAACT TGTGGTTTGG CTGTTTCCTG GATTTNATAA 120
 CATACATGTG CAGAAATGTA TTCAAATGAA AGGNAGCATA CCTTTATCAN GATGCTATTA 180
 AANTTGANCA TCGNGTNTAA A 201

SEQ ID NO:4582

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05435

SEQUENCE DESCRIPTION:

GATCATACAG TGAGGCTACA GTGACTGAGG GGAGAATCCC CTCCTGTTCA CTCTCCCAAC 60
 CCTGCTCCAG CCCCTCAGCT TCCCAGACCC TCATGCANTT GGTGTAAAT NCTCCCAGGA 120
 GCTGTTTTAC TGTCTACTTT TCAGGATTAA AAAAAANNNN AAAACTTAAA 170

SEQ ID NO:4583

SEQUENCE LENGTH:393

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05436

SEQUENCE DESCRIPTION:

GATCGGACTC TGCCCCCTGGA CCTGGGAACG ACTGGACTGT CACGGGGTTA CCTCCTAGCT 60
 CTCCAGTGA ACTCCTGCCA GGCACACACA GCCCCTATAG CACTGAGCTC ACATGGGACT 120
 GGGATATGGG GGCATCTCTT CCCAGAGAG GCACTCAGTG AGCCTCCTGT GCCTGGNCCC 180
 AGCCTGGGCC ATCTCTTAGG TGAGACAGTT GCCCGAACT AAGCCAGGCC TGGCTGGAGG 240
 AGCAGCAGCT TGGGGAGAGG GATTTCCTG CAGACCTCAA GCCATCATGC GGTGGGTGCT 300
 GCCATGACAG AGGCTGGACC NCTGGGCCAG CGGGGTTGCT CAACCACCTT TTGTGCAAGG 360
 TGGCCTTTGT GCTTGC GCAGGCAGAN GTN 393

SEQ ID NO:4584

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05437

SEQUENCE DESCRIPTION:

GATCCTGCCC GAGGAGGAGG ACGAGGGTGC CGACTCCTAA CCCC GCCAGG CAGCCTCGTT 60
 CTGCACAGGC ACTTTAGCCC GAGCCAGGNA CACCTGCGAG GGGGCAGGTG TGCTCCGCCG 120
 CCCTGCTGAT AAGCTGGCTT CATTAACTG ACCTTCTCA AA 162

EP 0 679 716 A1

SEQ ID NO:4585
 SEQUENCE LENGTH:122
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05438
 SEQUENCE DESCRIPTION:
 GATCTGTAGG GTCAGGAACA CAGCACCTAA CACAGTGCCT TATGGATAGT AGTTTTATAA 60
 TACAGATGTG TTGGAAGAAT AAATGAATGG GTCCTTTTCA AACAAATTCA CCAGAAGTTA 120
 AA 122

SEQ ID NO:4586
 SEQUENCE LENGTH:288
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05439
 SEQUENCE DESCRIPTION:
 GATCTGTCAC CTTCAGCGAG ACCTATTTCC TCCCCACCCC CAGAAACCTC TTGTGTTCTT 60
 GCCTAGGCC AGGTGTTCTT GGCAGCCAAA TCGAGTCTCT CATTTTCTCT TGTGGACCAG 120
 TTAGTTTTC CCATAACGCA GTATTCTGAG TTGCAACTG TCTCTCTGAT GTGTGCCCTT 180
 TGTTCACAC AGTAACCCCT GCATTCTGCT CTGCTCTAAT ACACTACCTG GAGAAAGTCT 240
 TTTCCTTATT TTCAATAAAT GTCAGACATT ATTGNAAGA AAAAANTN 288

SEQ ID NO:4587
 SEQUENCE LENGTH:188
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05440
 SEQUENCE DESCRIPTION:
 GATCCCTATG TGGCTAACAG AATTAATGNT TCCAAAAATG TTGNAATTA TATAGTNCTC 60
 TTAATCCCC ACCTCTAACT ATATTTTGG GTTATTTCTT TAGGAACAGA TGCCCAAGGAG 120
 TCATATTACT GAGAATCTAG AAATCTTTTG CAAAGTTCTT GTTATNTTGN CAAATTGCTT 180
 CCCNNNNN 188

SEQ ID NO:4588
 SEQUENCE LENGTH:287
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05441
 SEQUENCE DESCRIPTION:
 GATCTGCCCC CCTCGGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCAC CAGTGCCCG 60
 TCCTGCCACA TCTTTTTTGT TAGTTGCAGT AGCAATACAA CTTATCTAG AAAAGCTGGC 120
 CAAAAAGAA AATACCATGA TAATAGGGTA CCTAATTTAT TGCTTTATTT AAGAAAAATG 180
 TAATATTTCA TTCGAATAAG TACTTTTGGG CTGGGATGNT ATTTCAATTA GCTACTTGGC 240
 ATGCCACCCA TCTTAGGGAA TTATATGAGG GTTTATACTT TAAAGTN 287

5 SEQ ID NO:4589
 SEQUENCE LENGTH:289
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05442
 SEQUENCE DESCRIPTION:
 10 GATCAAAATT TCAAGTTGAC AAATTTGGAT TTGAAAAC TC ATTCACTTTT TCAATTTTTT 60
 TAATGAGGCA TAACATGCAT ATGGTTAAGT GCACAAATCT TAAGTGTACA GTCAGTGAAT 120
 TTTTGCATGT ATGTATGTAC CTGANGCAAG ATATAGA ACT TATTTACTTG TAAATAACAG 180
 CTATATTGAT ATGTCACATA CCAAANANTT TACCCTTTAA NTTATACAAT TCAGTGGTTT 240
 TTNGTATATT TGCAAAATTG TGCAACCN TC CCNACCATCT AATTCTAGN 289

15 SEQ ID NO:4590
 SEQUENCE LENGTH:293
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 20 CLONE:HUMGS05443
 SEQUENCE DESCRIPTION:
 GATCCTCAAA GAAAGATTTG TTAGAGATAG ACAGGTTAC AATTTGTGGA AACCGAATTG 60
 ACTGAATCTG TGGCTTCATG CGCTGAAGAA GCTGGGTCCT GGGGCAACAA GTGCTGTGTT 120
 25 GCCAGACAA ATAGATGCTA AACATGGCAC TTAAATATTT ATTTAAAAAC TTAAATTATT 180
 ATTGCAAGC AAATCTTAGT ATCTTTCTTC CAGTAATATG GCCTGGCTGA GGGTCAGACC 240
 ACAGGACAGG NGCGACCTCC GGCCTTGACT GTCTGGGAAG CTTGATGGAT TTN 293

30 SEQ ID NO:4591
 SEQUENCE LENGTH:62
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05444
 35 SEQUENCE DESCRIPTION:
 GATCCACTTA GAGCAATAAC CACTTTTAA ATGTAAAATA AAAAGACAAA TGNAAGGCA 60
 AA 62

40 SEQ ID NO:4592
 SEQUENCE LENGTH:64
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05445
 45 SEQUENCE DESCRIPTION:
 GATCTTCCA CTGCACTCCA GCCTGGCCAA TAAGACCTGT CTCCAGCAAG ACCCGNGTCT 60
 CAAA 64

50 SEQ ID NO:4593
 SEQUENCE LENGTH:323

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05446

SEQUENCE DESCRIPTION:

GATCTAGATT CATTAGGAAT GTNTTCTTGT CAGCCAGGCC AGGACCCGGG CTTGCCAAGA 60
GCAGAGGCC TCCCAGCAAC CAGGATACCA CCACTTTGGG GGCTTTGTGT ACAGAGGTCC 120
GGGTCTGAGA CCTCATAGGC TGCAGAAATC TGGGGCAGCC ACCATCAAGA AGCCCCTCTC 180
AGGGGCCAGA ACTCCTTTGC CAGCGTGGAT TTCTCAAGTC GGGACTGCAT AATTAAAGCA 240
GTTGCAGTTT TATTTTTTTT ACAGCTTTTT TCCCAAAAAT GATTTGTAGT TGTGTGTGCA 300
GCACTTTCGG CCTGATATGT GTN 323

SEQ ID NO:4594

SEQUENCE LENGTH:70

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05447

SEQUENCE DESCRIPTION:

GATCAAAAAG ATAAGTTTAC AAAGTTGAGA CCTCTCATAA AACAAATGAA TAAAAATTC 60
CTCTTGTA 70

SEQ ID NO:4595

SEQUENCE LENGTH:183

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05448

SEQUENCE DESCRIPTION:

GATCACCCTGT GCCTCCCTC CCCCTTTGTT TGCCCTGTG TGGTTGGTCA AGGAGGGATG 60
TGAGGNAAT AGGGACCCC CGACTTGCCC TCCTGCCTCA GTCTTCCCC CACCCTGTCT 120
CTTCCTGTG CTCTCTGGA AAATGCCAAA ATACACGATG TGAATAAAG TACAACGGCT 180
AAA 183

SEQ ID NO:4596

SEQUENCE LENGTH:70

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05451

SEQUENCE DESCRIPTION:

GATCTATAAT TATGCCAATA CCACACTGTC TTGATTACTG TAACTTTAGA ATAAATCTTG 60
AAAGTAGAAA 70

SEQ ID NO:4597

SEQUENCE LENGTH:202

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05452

SEQUENCE DESCRIPTION:

GATCTGCCTG TCAGAGTCCA CGTGTCTGG TCACTGGTCT TTATAATTGT TGTGCAATAA 60
 CTAAAGGCTA AGGACTAGAT GCACTATCGT GTAAAGAGAT TACACATGAC TGTACCATGT 120
 TGGACTTAAT CAAATAGTAT GTGGGGNTTT AAAATCGCTT GCATTGTTTC AAAAAATAAA 180
 TATCTCAATG TCAAATACTA AA 202

SEQ ID NO:4598

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05453

SEQUENCE DESCRIPTION:

GATCCTGGNG CCTGGACCGG GCTGGANGAC AGCTGAGNAT GGGCCTAGCA GATGAAGCTT 60
 GCCAGCAAGG CCAAAGCAAA CGGTTTCTNC TGTGGATAGT GGACAGAGAC CTTTGTAAAC 120
 AATGGAATTA TTCATTTTNC TCTATCNNN 149

SEQ ID NO:4599

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05454

SEQUENCE DESCRIPTION:

GATCAAGCAA TGGAAAAATT TGCACCACCG TGTCCCATGA AATTGTTTCA ATGTTTAGTT 60
 TAGATATTGC TAACTTGTGC TATTAACCTT TTGACAAGCG TGTAGTATTG TTTGTTTGG 120
 GTTCTTTTT GATTTATAAC TATTTAGTAG TCCCCAGCTA GCTACCAGTA CAGATTTTAC 180
 CCCATGGGTA GGATTCTATT GTTAAGCCAC ATAACAAAGC AACTAATTC TGACANCACT 240
 GCAATGGAA AATACGAACC AAAAAAAGT TACACCGATA AGTTCANCA ACTGTCCATT 300
 TTTGGATATT N 311

SEQ ID NO:4600

SEQUENCE LENGTH:221

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05455

SEQUENCE DESCRIPTION:

GATCCTGCCT TTTCNTTTC CCCACAATT CACGCCAGNA GTTCGTTTAC ATCAGGTAAA 60
 TCTTGAGAAA GCCTTGGTGC CCTCCTCCCC ACCCCCCACT CAGTAACCAC GTGCGTGCAC 120
 CCCCENATCC TTCTCAGTA GTTAAGACGT TCTAGGCAAT ACCATAGACA CATCTGACTG 180
 TGTCTCTNTC TTGAGTGCA AGAAACTCAA GTNATCTTAA A 221

SEQ ID NO:4601

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05456

SEQUENCE DESCRIPTION:

GATCAGAGCA GCTACACTGA AGCAAAAACC CCAGCGCCCA ACGCTAAATA TATTGCAATG 60
 GAGAAACCGT CCACAATGGG GTGTCTCTGT CCTTAGCAGA GCCTTGGGGC TGCCGTTTAA 120
 GACCTCCTG CTACTCCAC CCITTTAGCA TCTAGTAAAC CACGCGCTGT AACAAA 176

SEQ ID NO:4602

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05458

SEQUENCE DESCRIPTION:

GATCTCTATC ACTTTGCCAC CTGTTTGATG TGCAGTGGAA ACTGGTTAAG CCAGTTGTTT 60
 ATACTTCGTT TACAAATATA AAGATAGCTG TTTAGGATAT TTTGTTACAT ATTNGTAAAT 120
 TTTNGAAATG CTAGTAATGT GTTTTCACCA GCAAGTATTT GTTGCAAACT TAATGTCATT 180
 TTCCTTAAGA TGGTTACAGC TATGTAACCT GGTATTATTN CTGGGNCGGG CTTNTTTAAA 240
 ATACNAGNCC NGGCCAANAN AAANTAGGAN CAAAAACCTN GGGGGTTCTG AAA 293

SEQ ID NO:4603

SEQUENCE LENGTH:184

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05459

SEQUENCE DESCRIPTION:

GATCAGGGAT GGGGATGAGG TGAGGGGATT TGCTAGAAAG GGGTGCAAAG GAATTTAGCG 60
 GGTGATGGAG CTGTTCTGTG TCTTGATTGT GGAGTTATTA CAAGACGGTT ATTACAGTTT 120
 TGTNGTATTG AATTTTACTG TATGAAAATC ATACCGCAAT AAACCTCACT CACATACGCA 180
 CAAA 184

SEQ ID NO:4604

SEQUENCE LENGTH:372

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05460

SEQUENCE DESCRIPTION:

GATCAAGGAA TCTTTCATGA AGGAAATTTA AATACAGAAT GAAACATTAA NGGTAAAAGT 60
 GGAGTAATTA TTAAATTAT GTGTATAAAA GGAATCAAAT TTTGAGTAAA CATGATGTAT 120
 TACATCATCT TCGGAAATAG ATATGATGGA TTCTAGTGAA GACCAAANTT ACTTCTGTTT 180
 ACTTTCTATC AGGAAGCATC TCCATTGTAA ATATGTATTT NCATGTTTAT TACAAAGACC 240
 CAAATGANAA NTTTTNNGTC CATTTTTNGC ATAGCCTAAT GGTAGACTNG GAATAANAGT 300
 TCTGTATTN TGGGATTTC NGNGTATAAN NCTGGTTTCT AGNTGGGGCG TTAAGTCCCN 360
 TTTGGGTAAA NN 372

SEQ ID NO:4605

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05461

SEQUENCE DESCRIPTION:

5 GATCATGTAG GACGCGGCAT CCTGCCCTG GTAGAGAGGA CGAATGTNCC ACACCATGGT 60
 GTCTACGAAA AANAAATAGT TAGTCACCTT CTNACCTTCT CCTCTTTCTC AAAGCCTTCT 120
 GTCCCTGGTT TTTGCAAGTN CTGCATTTCC GCCGAGAATC CGCGTTGCCT ACTGCTGCCA 180
 CCTCCTGTNC ATTTAGAAGT ATGCAAAGAC TCCGNTTCCG TTTTCCTGAG CTCCTNNGGC 240
 10 CCCAGAGTCT CTGTTTGATT ATTTATTTAT TTATTNAGN 279

SEQ ID NO:4606

SEQUENCE LENGTH:324

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05462

SEQUENCE DESCRIPTION:

20 GATCGAATTT CACATTGTAG AGATGTATAG CTGTGATTAA GCTGCATATG TATGCTGGGA 60
 AACGGCTTGA GTGGATGGCT AATATAAAAG TTGTTGGCCA TAATGCCACA CCTCTCATCT 120
 GCTTGAAATA TGGACCAGTA TTCTAAAGTA TCAGCTACTG GGGTCTCATT CACTACAAGA 180
 TAANTTCAAA CTTACAGNA CTTTGACGCA GTTCACCACC AGGCGGGACT GTGTCTGCAA 240
 ACTCNCCTGT CTTACAGAC GNCTGATTAA NGCNANNNCT CTGGNNTCTC AAAGATNTAT 300
 25 TGGGGAGTGN NGGTTTTNTG GGNN 324

SEQ ID NO:4607

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS05464

SEQUENCE DESCRIPTION:

35 GATCACAGAC CTAAGGCCCA GGCCACCTNT CCANACCTGG AATCTATGCA NAANTAATTT 60
 CCCCTTAACC TGGGAGGCAG CGACACGTGT NACTTCTGTA AGAAACGTGT GTACGTAATG 120
 GAACGGCTGA GCGCCGAGGG CCACTTNTTC CACCGGNAGT NTTTCCGATG CAGCATCTGT 180
 GCCACCACCT TGCGCCTGGC CGTCTACACC TTTNANTGCN ATGAN 225

SEQ ID NO:4608

40 SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05465

SEQUENCE DESCRIPTION:

45 GATCTAAATN CAGACTNNGG AGTTGGGAGG AGGNACCAAA GTGAACCATC CTTCATTTAT 60
 TCAGTCATTC GTTCATCTGT CAAACACGTA TTTGGACATC AAGGTTGCAG AGATGAACAA 120
 TGCATGGNTT TCATCTTTNA GGAGTTCAAA ACCTAGTGGA GAGANCACAT GGTACAATCG 180
 50 TAACACATGA AGGTCAAGTA AGTNCTGCAG TAAAGGTACT AATAACATGT TCCTTGGNNC 240
 AGNAGGATGN N 251

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SEQ ID NO:4609
 SEQUENCE LENGTH:239
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05466
 SEQUENCE DESCRIPTION:
 GATCCAAGTG TTGCCTGTCA GCAGAGATAG GAGTGAAGTT GATGATGATG GTTAGATGGC 60
 CTCACAAGGG ACTCTAGTGA TAGTAAAGGT TCCAGTGGCA AACACACAAG TGAAGAAGTTT 120
 GAATATAGTT TCATAATGTT TGAGAGTGTA AAAAATGCAT TTTTAAATTA ATACATTACT 180
 TTCTGTACTA TTTTAAATAA GTGTGTATCT AAATAAACAC ATAANATGTT ATGAGTAAA 239

SEQ ID NO:4610
 SEQUENCE LENGTH:344
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05467
 SEQUENCE DESCRIPTION:
 GATCATCCTG GCTGGGAGAA GTGGGACCGA GCCACCCAGC TNCATATCC CCAAGCNGCG 60
 CTACAGCCGG GATGGGAGGC ACGTGGCCTC TCTTTTATCC GTCTATTTAT NTTGTAAGTG 120
 TATTCGTGTG GAGGAGGTTG TTGCTTTATT TTTTAAAGGC TCTGGAGTNT TGTGTATGGT 180
 TTCTTTTCAC ATCNGGGGNT CCCATGGGCA CTTCTAAGAA GAGAGGGGAT TTCTTTGAAA 240
 AGGAGAGAGG AATCCCCTAG AGCAGGGGAA GCANTGCCTG CCAGCTNTTG TGCACCTTNC 300
 GGGNGAANTT AAATATNCNN NAAATTTTCA AACCAGNGAA AANN 344

SEQ ID NO:4611
 SEQUENCE LENGTH:128
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05468
 SEQUENCE DESCRIPTION:
 GATCTCTCTC TCTCTCTCCC TTCTCTCTCT CTCTGTTGGA TGCTTCTGTA TCTTTTCCA 60
 CAGCATAATG TCTGGTGTGA TGGGGAGCTA TTTATTGAAA TNAAAGATTA TNTATTTGTG 120
 CCATGAAA 128

SEQ ID NO:4612
 SEQUENCE LENGTH:92
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05469
 SEQUENCE DESCRIPTION:
 GATCCATTTT TGGGATAGAA TTGTATTTTT TAAGTCATTT TTTTCTTG AAATGGATAT 60
 GTACAAATAA AATAAATGGA AGACAGGATA AA 92

SEQ ID NO:4613
 SEQUENCE LENGTH:130

EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05470

SEQUENCE DESCRIPTION:

GATCCAACAC ATTCANGTCA GTAGAANCA ACCAAAACAT GCAAGCTTCA GCCTGNTCGA 60
GTTCTATAGT TGTCACCTAA ATCGTATGTT GTATGATACA TANGGTTATG TATTAGCNCG 120
TAGCCGNGGN 130

SEQ ID NO:4614

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05471

SEQUENCE DESCRIPTION:

GATCACAGCT NCCCTTGAAT CTCATTGCCT CAGAGAAGAC TAGAGGGCTC TTGGACTATC 60
CCTAGGGCTA CACAAGAATA GTTCAGCCTT CTGCCATGCC ACACAGCCTC AGCTTGAATC 120
TGGTTCATTG CGTCCTCGTG TTCTTCTCTC ATCCTTGCCT TANACCAGGG ATTCTGATAC 180
CGAAGAAGAG GGGCCAATGA AAACCATGGA GTCTGTTCGT GACTCCCAGG GCTGGGACAT 240
TATGTAGGAG CCACTTCATA AACATTCTCT TTACTION 279

SEQ ID NO:4615

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05472

SEQUENCE DESCRIPTION:

GATCAGTCAT GTGTCCGTAA CCTCGTTCCA TGACATCAGG ATAGCTGTGT TTGCACACCA 60
TGCTCCATGT NCATTCCGAG CCAGGAGGGG TTCTNAGTGG AGCCTGGCTT AGGGAACAGG 120
GAGCGATGGA AGAATGCCAA CATTAGCGTT GGTCTTCTCT TGTNAGGAAT NAAGGATGCT 180
TGCACACATG CACCCCTCA CTCTCACACT TGCACACATA CACACACACA CACACGAANA 240
TGGTTGGTTT GTCAAANCTC ACTGTAGTAC ATAAAGNTTG CACTCTGNGT NNNNATATCT 300
AGCNGNATGG GGGGTACGNT TTGGGCNGGT GTN 333

SEQ ID NO:4616

SEQUENCE LENGTH:335

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05474

SEQUENCE DESCRIPTION:

GATCTCTTCC CACCTACCCT ACCTACTCCT ACCCAANACC CCCCTTCCCC ATTAATGTGA 60
GTAATGAATT AGCCTGACCA CAGGTGGTCA CTGTAGGCTA ATGGAAAATA CCCAAGGGNG 120
GGCAAAGCCC CCCATCAGAT GCATGAAGGT TTGCNAATGT TGACTION CACACACAC 180
ACTGTGTCTT TATAGANTTN CCCITTGCCN CACCCTCTC CTGTNTCCAA CCTGGGACAC 240
ANCTTNGCTC AAAGNGCTGG TGGNTTGTGG GGCATTAATC TACAACCANA GTCCTGAATG 300
GAGGCAAAGA GGGCCCCACN GGNTTNGNG GGNTN 335

SEQ ID NO:4617

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05475

SEQUENCE DESCRIPTION:

GATCCATTCA CATTGCAAAC TTATCCTACT GTATAGCCAT CCATTGTAAG AATACATTTT 60
TCNATTTATA TTGTGTACAT TACTCCAGTG AACATTCTNN ANCTCCTCTT TTNGTATCCT 120
GTGCAAGANT N 131

SEQ ID NO:4618

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05476

SEQUENCE DESCRIPTION:

GATCTCAGCT ACGTGGGAGG CTGAGGCAGG AGAATCTCTT GAACCTAGGA GGCAGAGGTT 60
GCAGTGAGCC AAGATTGTNC CAGCCTGGGC GACAGGGTGA GGCTCTTGTC TCAAAAAAAA 120
AAGTCCACAT CTTATGANC CCTCAGACTC TGGAGTTGGG TGTCGGCTTT TTAGCCAGN 180
TTTTGTGGGA ATTGCCTTTN NCCTATTAAG GANGGAANGT GGGTAATGGA GTCCCAGCCA 240
CTCANGAGNC TGGNTATCCC CCGAGANTGG CTTGGGTTAC CAGCTATGGA CCCTTGGAAG 300
ATGANTCTAN ATCCTTCTCA CNN 323

SEQ ID NO:4619

SEQUENCE LENGTH:346

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05477

SEQUENCE DESCRIPTION:

GATCACCTCT CTGTATCCCC CACCCACTAT CCCATTNCC CTCCTCCTCA GCTAGGGCCA 60
CGCGGCCCCA CATTGCACTT CTGGGGGGTG ACCGACTTCG TACACGGGT TAAAGTTTAT 120
TTTNATGGTT TAGTCATTGC AGAGTTCTTA TTTTGGGGGG AGGGAAGGG GGCTAGTCCC 180
CTTCTTTTGG CCCTCCGCCC CCGCAGGCTT CTGTGTGCTG CTAAGTGTAT TTATTGTNAT 240
GCCTTGGTCA GGGCCCTCT ACCCACTTCT CCCAGTAAGT TGTGGGCCCA AGCCCNATC 300
CNTGTGCTGT GTGGAGTGGN CAACCTGACC CCCGNAAGNG GGNNAN 346

SEQ ID NO:4620

SEQUENCE LENGTH:343

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05478

SEQUENCE DESCRIPTION:

GATCTTTTAA AGGATAGACG TGGTCTCATG CTTCTTTTGT NCGACTCCGT TTAAAGGAG 60
CATTGTAACC ACTATCCTCA TCCCTACAAA AATCCAGTGG ATGCACTTCC AAATTACTTC 120

EP 0 679 716 A1

5 TGTCATTTTG TATGTGTTGT GTTTAGGGNT GCGTAATTTT CACTGGATGN TGAGATACAT 180
GGTGATACTA TGTGAGTTTA TTCTCTGTGA ATATGTCTGT ACATAGNCAG GAAGCTCTAC 240
TTATTTGTNC ATAGGCTGTC TGANGTATGT ACTTCTGTCA CATGGNCTTC ATTCTGATAA 300
AGGGTGTTTC TCCCTTGNTT CACTGTCCAT ACCTTTGTGN NGN 343

10 SEQ ID NO:4621
SEQUENCE LENGTH:50
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05479
SEQUENCE DESCRIPTION:
15 GATCCTTCTG TGCTTGCTTG CATCTTTAAT AAAGACATGT TCCCGGCAAA 50

20 SEQ ID NO:4622
SEQUENCE LENGTH:170
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05480
SEQUENCE DESCRIPTION:
25 GATCCAGCTA GGCTGGGACA CTCCTAAAT CAGCTGCGTG TTGTTAGCAT CAGGCAGAAT 60
GAATGGCAGA GAGTGATTCT GTCTTCATAG AGGGTGGGGT ACTTCTCCAT AAGGCATCTC 120
AGTCAAATCC CCATCACTGT CATAAATNCA GNGGNAATNG NCTGNACAAA 170

30 SEQ ID NO:4623
SEQUENCE LENGTH:290
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05481
SEQUENCE DESCRIPTION:
35 GATCCTCTCT GTGTAAATCC TGCCCGGTGC TGTNAAGGCT GGACGGTGGA GGACCTGCTG 60
GGGTCTCCTG GNACCCGCCT GTTGCTTCTN CCCTCCCTG TGGAAAGGTC TATATNACGG 120
GCTGCCTGAG GCCCCAGAAC TCGTCTGTAA ACCACCTTTT CCAGCCAGAG TTCCCAAAGC 180
TGGAACGCTA GCTGCCTGCT CTTCTTAAG NTGGCCTCCC CCNGACCCGT CANGGTCCTC 240
AGTTGCCAGG GCTGGGGCCA NCCACTGTNA CACTGNGGNN TGCANGANAN 290

40 SEQ ID NO:4624
SEQUENCE LENGTH:125
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS05482
SEQUENCE DESCRIPTION:
GATCCAGCTT CAGCTGCACA CCTCTGTCCC CTTGGATGGG GAACTAAGGG AAAACGTCTG 60
TTGTATCACT GAAGTTTTTT GTTTTGTTTT TATACCGTGT CTGANTAAAA ATNCCACNG 120
TAAA 125

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SEQ ID NO:4625
SEQUENCE LENGTH:252
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05483
SEQUENCE DESCRIPTION:
GATCCTGACC CCAGCCAACA GCTGAGCTGC CGGGCCTCCT CGAGGCCCTA AGCCAGCCCC 60
AGAGGTCCCA TCTNAAGCTG GAGTACCCTG GGGTCAGCAG CAAGAGAAAG AAGNGGAGAT 120
TTTNTGTTTN TTTTCCCCT CAGCCCTGCC ACCGTGGGGA GTCTGGTTTT TNTCTTCATC 180
CTGTCTCTCT CCTCCTTACT CTTGGATAAA TAAACAGCCT GTGAGCACAC AGGCAAGCCC 240
GGCCCAGTGA AA 252

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SEQ ID NO:4626
SEQUENCE LENGTH:334
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05484
SEQUENCE DESCRIPTION:
GATCGTNACA AATCTNCCCT CCTCACCAGC TAGTCTGGGG TTTCCTCTCC CTGCCCCAGG 60
CCAGAACTGC CTTCTTCATT TCCACCCACG CTCCCAGCCT CTTAGCTGAA AGCACAAATG 120
GTGAAATCAG TAGTCTCGNT CCATCTNNAA TAGACTAAAC CTAAATGCCT CTAGGACGGA 180
CTGTTGCTAT CCAAGNGTTT GGTGTTACCT TCTCCTGGGA GGTCTGTGCTG CAAACTCAAG 240
TTCNCAGGA TGGTCAAGNT GTCANGANAT ACAAGTTTNC ATCAATTGTA ATTATTACCT 300
GGTCTTTNCA ANTTTGCAAN GGNGTTTGG GNTN 334

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SEQ ID NO:4627
SEQUENCE LENGTH:192
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05485
SEQUENCE DESCRIPTION:
GATCTTCCAT CAGGGCCGGA GTAAATCCCT AAGTGNCTCA ACTGCCCTCT CCCTGGCAGC 60
CATCTTGTC CCTCTATTCC TCTAGGGAGC ACTGTGCCCA CTCTTCTGG GTTTTCCANG 120
GGANTGGGCT TNCAAGGTNG GNGTNTCTGT AAAATCAACA GGTAATAAAA ACTGTGTATG 180
AGNCCNGGCA AA 192

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SEQ ID NO:4628
SEQUENCE LENGTH:315
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05486
SEQUENCE DESCRIPTION:
GATCTACAAT NAGATATCAC TTAACACTCA CTGGAATAGA TATATAATCA AAGTGATAAT 60
ATCAAGTGTT GGNGAGGATG CAGAGAAATT GGNACCCTCA TGCAGTGTG GTGGATACCC 120
ACGTGATATN AAAACAAATG TCTACACAAA AACTTGTGCA CAGATGTTCT TTGCAGCATT 180

ATTTATAATA GCCCAAAATT GANACAGCCC TANTTTCTAT CAACTNACAG GTGAATAATC 240
 ANAACGTGGC ATATCCATNC ATGGNGTATT ATTCAGCATT ANANNATGGG ATGAAGTACT 300
 GGTATGCACC ACTCN 315

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SEQ ID NO:4629
 SEQUENCE LENGTH:51
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05488
 SEQUENCE DESCRIPTION:
 GATCTGAAAT NATGGTTCAA AAAATACATT CATAATAAAA GTCTTAACAA A 51

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SEQ ID NO:4630
 SEQUENCE LENGTH:337
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05490
 SEQUENCE DESCRIPTION:
 GATCAATGCC CNTNTNTCAG TCTCATCTGT ACTCACGGCA GCCCTGTGGA GTACGGTGTA 60
 CTGCCCCAGC TTACAGATGC AGAAAGCGAG ACGTTCTGCC ATNAGATAAA GTCACGTGGC 120
 TCTTTAGTAN CACGGACAAG GCTCCTCGCC AAGGAACTCG TGGCAGAAGA GGGCAGCAGT 180
 TGGCAGTAGC TGCCGATGTC TGTCCCCAGC TNCACCATTC CTCCTGTGG CTGTGCCATG 240
 CTCGTGGTTT CAGTNTCCGT GTGTNCATGT GNCTNCCCTT NAAGAGCTCG CANCTGGTGT 300
 GCTTNGGGGG TCCAGGGCT GTGTAGNGTN TTCTNCN 337

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SEQ ID NO:4631
 SEQUENCE LENGTH:90
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05491
 SEQUENCE DESCRIPTION:
 GATCTGTCTA TTTCGTTTAT CCATAGTTGC CTNACTCCCC GTCGTGTAGA TAACTACGAT 60
 ACGGGAGGGC TTACCATTTT TTCCCTGAAA 90

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SEQ ID NO:4632
 SEQUENCE LENGTH:97
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05492
 SEQUENCE DESCRIPTION:
 GATCAAAGGC TCTTTCCTCT TTTGTTTGAG AGTTGGTTGT TTTAAAGCTT AATGTATGTT 60
 TCTATTNAA AATAAATTTT TCTGGCTGTG GCAGAAA 97

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SEQ ID NO:4633
 SEQUENCE LENGTH:320

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05493

SEQUENCE DESCRIPTION:

GATCATCGTA TGCAACAGCT GGGTAATAAG ACTGGCATAG CTCAAACTAT CCTGCCAAAC 60
 GCTCTCATCT GATTTTCTCT CCCTTCTCCC CCAACCTCCA ATCACCCTGA GTCACCTGTA 120
 AATTCATTG TCATTCAAAG CGGAATAACA AGTTGTCCCT AGCAAAACCG CTGAGCGCTT 180
 TATAATTTG TGGTGTATTT TTGTCAGTAG GTAGCAGAGG CGGAAGTATT TTTTGGTGTA 240
 ATTCTTGAAA TTTCTGACA GGAACCCGN TAAAGATAGA TGTGTCTGAG GNTAAAAAAN 300
 GTTNGGNNNG NNNTGNTTTN 320

SEQ ID NO:4634

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05494

SEQUENCE DESCRIPTION:

GATCTATGAA ATAGGTAACA TTTGAGTAGG TGTCATTTAA ANATAGTTGG TGAATGTCAC 60
 NTATGCCCTTC TATGTTGTTT GCTCTGTAGA CATGAAAATA AACAATATCT CTCGATGATA 120
 ATTTGTATTA AGTAATCTAT AAGAAA 146

SEQ ID NO:4635

SEQUENCE LENGTH:177

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05495

SEQUENCE DESCRIPTION:

GATCTATCCA GCTGCTTCCT TGTAGCCAAG AATGTGTTCA ATGAATTGTG ATTCACTGAT 60
 TTTATTGATT TTGTTTTAAA ACAGGGGAGAC TGGTATTTTT GAAGCTGCTA TCATTTTCTA 120
 TTTCTNTATT AATNCTTTG TAATCATCTT ATTAAAGTTT TCTTATTAG TGGGAAA 177

SEQ ID NO:4636

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05496

SEQUENCE DESCRIPTION:

GATCCTCTCC TTGTATGTAA TACCTTTTTT TCCCCTTTCT AGCAAGTACT TTCAAAGAA 60
 CTCTGTACAT TTTAACATAA AAAATAAATT ATGTTGAGCC AAA 103

SEQ ID NO:4637

SEQUENCE LENGTH:145

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05497

EP 0,679 716 A1

SEQUENCE DESCRIPTION:

GATCCATTG TAACTACTCT TAATATATGG TACATAGTTT AAAAAATTN ATTGAGCTTA 60
AAGTGTATCT AGTTTTGTGT CCTAATTATC CTGCTTAACC TTCTATTGTA AGGNTTTNCC 120
ACGTCAATAA ATATTATAAT GTAAA 145

SEQ ID NO:4638

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05498

SEQUENCE DESCRIPTION:

GATCANCAA CTCAACACCA TCTTGCAGGA GCAACGGGNT GGCCTTTAAC ATTGCTGAGG 60
CTTTCAAAGA TGTGTCAGAA CCCATTGTAT TTCTGCAACA GATGCAGGAG TTTAGAGAGA 120
AAATCAAAGT AATCAAGGAA ACTCCTTTAC CTCCTCTAA TTTGCCTGCA AGCCCTTTAA 180
TGAAGAAGT TGATACCACT CAGTGGGAAG ACATAAACT AGTCGGTGTG GATAAACTTT 240
CTTTCCTCA AGACACTGGC ACATTCATTN GCAAGGNTN 279

SEQ ID NO:4639

SEQUENCE LENGTH:242

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05502

SEQUENCE DESCRIPTION:

GATCAGAGCA AAGAGAAAAG AAAGCATAAG GACACTTACT CAACAGAAGC ACCTTTAGGC 60
GAAGGAACAG AACAATATGT CAATAGTATC TCAGATTGAC CATTCTGTG ACTTGTCATT 120
TCTACTTTCA GAACTAAAT GACTTTCAA TTTGGGTATA GACAATAAAG AACTGAAGTG 180
CTCACTACTC AGTGATTTGG AAATTTTGAT GCTTGTATAA ATGTCAGATA ATTAATTCN 240
AN 242

SEQ ID NO:4640

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05503

SEQUENCE DESCRIPTION:

GATCTTGTTA GACACATGAA TGTGTATAAT CATGTAAAT GCAAATAAAA CTAGTTCATA 60
GAAA 64

SEQ ID NO:4641

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05504

SEQUENCE DESCRIPTION:

GATCATNAAG GTAAGGACTG GAGTNATGCA GCCACAAACC AAGGAATATC AGTAGCCATA 60

AA

62

5 SEQ ID NO:4642
 SEQUENCE LENGTH:339
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05505
 10 SEQUENCE DESCRIPTION:
 GATCAGTNCT AACCTGAGC TGGCGGCTAT CTTGAAAAGT ATCCNGAAAG ATTCATCATC 60
 TACTAACTTG GAATCAATGG AACTAGTTA GATGTTTGT CACCATGGGG ACCATTACAT 120
 ATGACCATAC AATGCACTGA ATTGACAGGT TAATCATAAG ACATGGAAAG AGAAGTGTCT 180
 AAAAGCTTCA AAATGTTCCA CTTTTTTTTT CCTTCATGGN GACTGTTTGT TTGGCTTTCT 240
 15 TCCATTGTNG TTTTGTAGC ATTTATTCA GAAATGTGTA TTTCCATAAT CCAGAGGTTG 300
 TAAAACCACT AGTGTTTTAG TGGGTTACAG CANCEATTN 339

20 SEQ ID NO:4643
 SEQUENCE LENGTH:70
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05506
 SEQUENCE DESCRIPTION:
 25 GATCTTCCTC CTTATTTTAA TGCTTCTTC TCTTTACAAT TAAAAGTTCA TAAAATCTTT 60
 CAACATTAAA 70

30 SEQ ID NO:4644
 SEQUENCE LENGTH:57
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05507
 SEQUENCE DESCRIPTION:
 35 GATCAGCCCT AATNATGCTG TGTCCATGAT GCTTTTAATA AAAACAACCC CCACAAA 57

40 SEQ ID NO:4645
 SEQUENCE LENGTH:158
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05508
 SEQUENCE DESCRIPTION:
 45 GATCTCTATG CCAATATGC TGCCTCAACT CTGAGCTGTC TGCAAGGCTT AGTAAGTATT 60
 GAGTGGTGT TTTTTTTTC NTTTTATACA ATACCATNTT AACCACATGA GTTAAATAAA 120
 TTTGAGAAAG TTTTTTAAA CAGTGCTTCA AACTGAAA 158

50 SEQ ID NO:4646
 SEQUENCE LENGTH:153
 SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS05509

SEQUENCE DESCRIPTION:

5 GATCCCCGGG TACNANTNAN CCATGCAGGC ATGTTTTTTT TNATTTTTC ATAGGCAATC 60
 CATTCTGTAC AGGTAGCTAA CTTTGTAAC GCTGTGTATT CCCTCTGCCC CCATGGCTGC 120
 TGGTGTAAT AACTGCATC TCCCGTTGGT AAA 153

10 SEQ ID NO:4647

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05510

15 SEQUENCE DESCRIPTION:

GATCCAGAAG TCATTAAGG AACATAAGG CTGGGGAGGC AGGGGGAGTA AGTTCCTATTA 60
 GAAAATCCTA ANAGCTTAAC AAACTAGGG TACTAAATC AGTTATAACA TGTTACAGAC 120
 TTAAATCATA GAGCTGCCCC AACATCTAGA CAGTCTCTCC TACTGATTAT AAATGAGTGA 180
 20 AAATATCAG TTAGAAAAAT CTAATTTAAG TTGTTAATAC ATGTTTCTTT GGTGAGCACC 240
 TGGATATANT TATCACAAT NCTTTTATAC ATATGTCGAA AATGCTTTCA ACAAACCTAA 300
 GTGTCCTAAT TACATGCCAC TTTTNNAGG CTCACCTTAT GN 342

25 SEQ ID NO:4648

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05511

30 SEQUENCE DESCRIPTION:

GATCGCTACG GTTCTAAATA CTGAAGTCAT GATGTGTATT TCCNGGAGAA ATTCCTCTTT 60
 AAATGAACAA GTAACCACAT CTCAGGCGGC AGTGAAGTCC AGATAGTTTT GCAGATTGTT 120
 TTGCTACTTN TNCATATGGT ATATGTTTCT GNTTTTAAAT ATTNCTNTTG AGAAATTCTG 180
 AGTNCTGATG TAGGAGCTTT CCTGTNATNN CTGTTTCACG TTCCTTCCTG TCACACCCTC 240
 35 CTTGTGGCGT CTCTGTGTAT ATCCTNNGCT TTATTTTCTN GGANCCCTGN GATTTCAACA 300
 CTGNGGGCCT GGAGACCTCG GCTCCTNCTG GTN 333

40 SEQ ID NO:4649

SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05513

45 SEQUENCE DESCRIPTION:

GATCATGAGA AATTACCAAA ATGTCCACCA ATAGAATGAG TGAATCACCT GTGGTATATT 60
 TATAAATAAA AATATTAANT AGAAGGTAAC ACAAATCAGA CATACACACA TTAGATAGAT 120
 AAATTTAGAG GAAAAAAAAA AAACCATGCA AGNTTCAGCT NCNCGNGTNC TNTGGTGNCA 180
 50 CCTAANN 187

55 SEQ ID NO:4650

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05514

SEQUENCE DESCRIPTION:

GATCGAGGGG GTATGCGTGG GGGAGTTGTG AGTGAGCTCA GCTCCTTTCA GGCCTGGCCT 60
 CTCCCAGAAC AGAGTGAAGC CCCTGCCCTG GACCCCTGCT CCCTTCTACC CTTGAGGGCC 120
 ACCAATGGAA GAGCCCGCCC TTCATTCTGC AGCTCCTGCG GCCAGGCTGA GCTCTGCCCC 180
 CAACTTTGTT TTCTCTCATG TTCTCAATAC ACTCTGCCTC AAATCAAA 228

SEQ ID NO:4651

SEQUENCE LENGTH:300

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05515

SEQUENCE DESCRIPTION:

GATCTGTAGT TAAGGGAACC AAGGGGTCAT TGGGGCAAAA GCATTGTTTC TCAAAGCTCC 60
 TTGATTAAGA GAAAGAACAG AAATTTGCAC AGAAGATAGT GTCAAGGAGT GAGAAAAGTTT 120
 GTTTGAGGGC AGTAGCTCAG TGTGGAAGAA AATCCTGAAG TTTCTGTTGA AGCCATACAA 180
 TGTTCATGG GGTACTCTC TAAGACATTC TCTGAGGTGT GTGAGGAAGT CACTACTCCT 240
 AGCCTTTGTT AAGATGTAAT TTTAAATATT CAGTTATGGT ACTATGTTTG CAACTCTCTN 300

SEQ ID NO:4652

SEQUENCE LENGTH:154

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05516

SEQUENCE DESCRIPTION:

GATCAGTTTA TATTGCTCTT AAATGATAAT CCTCAGCTTC CAAGTTTTTG TGAAGTCACT 60
 TTGGTTTATG TGTTTGCTAC ACTCACTGAG AAATTAAACA CTTTGCTTGA TTTATTGTAA 120
 AAAGGAAAAA ACAACAGAGC CATACTTAAG CAAA 154

SEQ ID NO:4653

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05518

SEQUENCE DESCRIPTION:

GATCTTTATG CTGTTATNAC AGGAGAAGTG ACATACTTTA TATATGTTTA TATTAGCAAG 60
 GTCTGTTTTT ANTACNATAT ACITTTATATT TCTATACATN TATATTNCTA ATAATACAGN 120
 TATCACTGAT ATATGTAGAC ACTTTTAGAA TTTATTAAAT CCTTGACCTT GNGCATTATA 180
 GCATTCCATT AGCAAGAGTT GTACCCCCNC CCCAGTCTTC GNCTNCCTCG GGNTTAAGCT 240
 GTTTTATGNN 250

SEQ ID NO:4654

EP 0 679 716 A1

SEQUENCE LENGTH:240

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05519

SEQUENCE DESCRIPTION:

GATCCCCACC CCAATTCAAT CCCGGAAGGG ACTTACTTAG GAAACCCTTC TTTACTAGAT 60
ATCCTGGCCC CCTGGGCTTG TNAACACCTC CTAGCCACAT CACTACAGTA CAGTGAGTGA 120
CCCCAGCCTC CTGCCTACCC CAAGATGCCC CTCCCACCC TGACCGTGCT AACTGTGTGT 180
ACATATATAT TCTACATATA TGTATATTAA AACTGCACTG CCATGTCTGC CCTTTTAAA 240

SEQ ID NO:4655

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05520

SEQUENCE DESCRIPTION:

GATCCAAATA GTCAGAAAGA AAGGAAGGAA GTGCTGGTAA GAAGGAAGGG AGGAGCGTAT 60
CCTAAAGAAC TACTCCCAAC TATACAACTG TTGTTTCCT CCCAATTTTC CTAGGGATTTC 120
CTCATAATTA TCTCCTTCT CTTCATAAAT TCTACTTACT GACCTGAAAT AAAATTTCTC 180
ATTTGGTTGT CCTCAAGGTG CAGAATATGG ACTTAAGGCT CCTCCAGACA ATTCAAATGT 240
ATTGTAGACA GTTAAGNTAG AGTAAACTC ACCGTTTTGT CCCACTGAAA 290

SEQ ID NO:4656

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05521

SEQUENCE DESCRIPTION:

GATCGACAGG CATCCACAGT TGAGTATCTC CCAGGCATGC TACATTCAAA TTGCCCTAAA 60
GGTCTCCTAC CCAAATTCCT CACGCTGGTC TTNGGTAAA CTAGGCCCTG CTAAGTCTTA 120
TAAC TTCAT ACAGGTTTG ACCAACAGGG CTTTATTCCA GGANCAAAT ATCTTATGCC 180
TTGGGACATT GNCATCAGGA CTAGAGCTGN AGATGAAGGA GACTTAGACA CAACTCTTG 240
GCCTGCTCCA AATAAGCTA TTCCTNGNAA GAGNAGTGGC GTTGTAATGG NTAAGAGNGN 300
AGANCGGCGA GATGACATTG NTCGAGCTTN TNNTGGNCTT TGAATATNGA AGTCN 355

SEQ ID NO:4657

SEQUENCE LENGTH:382

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05522

SEQUENCE DESCRIPTION:

GATCCGCAAA CGATTAATTC TGTCAGACAA AGGGCAGCTG GATTGGAAGA AGATGTATTT 60
CAAACCTGTC CGATGTTACC CAAGGAAAGA GCAGTATGGA GATACCTTC AGCTCTGCAA 120
ACACTGTAC ATCCTTTCCT GGAAGGGCAC TGACCATCCG TGCACTGCCA ATAACCCAGA 180
GAGTGCTCC GTTTCATTT CACCCNNGGN CTTTATCAAC TTGTTCAAGT TCTGGNATCC 240

CAGCACATGA CAACACTTCA GAAGGGTCCC CCTGCTGACT NGAGAGCTNG GGAATATGGC 300
 ATTTGGACAC TTCATTGTGTT AAATTAGTGT ACATTTTAA ACATTGGGTT CGGNNAACTT 360
 TCAGNGGTNA GGTCCGNGNN TN 382

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SEQ ID NO:4658
 SEQUENCE LENGTH:326
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05523

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SEQUENCE DESCRIPTION:
 GATCATTAAG AACTTAAAT ATATTTTATT AGAAAACATT TATCTATGAA TGAATATTTT 60
 CTTGATGCTG GTCTCTGCAC ACATATGCTT GGTACTTGC ATGCATTCAT TGGTTGTTCA 120
 ATAAGTGAGA TGATTACAGA TAACTTAATA CTGTATTTNC CTTATATGGA AAACCGTTAT 180
 AGACCCAATA ACAACTAANC CTTTCAAAAG AAANTATTN CTATTATGAN TGTGATTTT 240
 CATACCNAAG AAGATGGAGA GTCTAAAATT TGGGNTATGG ATNCTNGATG GNNTTTTAN 300
 TNGGNAAGCC TTCTNCAAG TTTNAN 326

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SEQ ID NO:4659
 SEQUENCE LENGTH:133
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05524

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SEQUENCE DESCRIPTION:
 GATCAGCTTT GCAGTAGATT ATGCTGCATC CTCGTGGCAA AATTCTGTAT TCTTAGTGAT 60
 TGTTACAAAC CCCTTTATTG CTGCTGAGA AAGTGAAAGA TTGTGTATTT CTATTAAC 120
 ATTTACAATC AAA 133

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SEQ ID NO:4660
 SEQUENCE LENGTH:264
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05525

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SEQUENCE DESCRIPTION:
 GATCAACATC CGGAGATGGA TTTNCCAAG GCTAAATTCA ACTAGCCCCT GTTTTTTCCT 60
 CCCTGAACTC TTGGGGCTGA GCTGCAACCA CCCAACTTC TTCCCACTC TTCTCTGGA 120
 CTTGTGGGCC TCAGGGCTTG GGGCAGGCAT GGGACTGGCC CAGGCACACA GGTCCCGGG 180
 CATCAGGAGA AAGGCTGGGT CTTGGGACCT TGTCTCCCC AGTTGGCCTA CTGTTACACA 240
 TTAACACGAT TTGCCAGNT CAAA 264

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SEQ ID NO:4661
 SEQUENCE LENGTH:319
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05526
 SEQUENCE DESCRIPTION:

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EP 0 679 716 A1

5 GATCACCTNT TCCCTTCAAT CCTTGTGGCT TCTGGGAATC TTCAGAGCCT GGGTCTGAAA 60
GGTGTTCCT ACATGTCTCA GGGCTGGATG CAAACCTGGC TGGGGACCTG AGCATCAACT 120
CCCATTAGA ATCAGACATC TCCCTTCCCT GCAAATTGTC TACAACTACC AAATTGCTCC 180
AGGTTTGAGA TGGTATTGCT AAATTTAAAA TTAACAAGN GACCCANCAN CAGCTTTTAA 240
AAGTGTCTNC TATTTTCATNN GTATTTTNTT NAACCTTGGC CCCANTTGNT AGAAAAGTCT 300
TTTGCNGAAA TGNATTTNN 319

10 SEQ ID NO:4662
SEQUENCE LENGTH:239
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05528

15 SEQUENCE DESCRIPTION:
GATCAAAACA GTGTGGTGCT GGCAAAACAA GAGACATAAN TCAGNAGAAG AAAGAGTCCA 60
GAATTAGACC CACACACATA TGGACAATTG ATTTTTCAT AAGGGCACCA AAGCCATTCA 120
ATGTATAATA GAGAAGACAG TTTTTTCAA CAAACAGTAT TGGANCAGTT GNNCNNNTAC 180
20 AAAAAAGTAAA CTTCANCCCA TACCTCACAC TATATCTAAA ANTTAGCATC AAATGGNTN 239

25 SEQ ID NO:4663
SEQUENCE LENGTH:68
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05529
SEQUENCE DESCRIPTION:
GATCTATTTA GTCCTACAAA TCAGGAGTGG TGTAGAGACA TCCAAATTAA AAGAAAAAAA 60
30 AACACAAA 68

35 SEQ ID NO:4664
SEQUENCE LENGTH:122
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05531
SEQUENCE DESCRIPTION:
GATCGAGTTT TAAATTGATA GGAGGGAACA TGCCTAATT CTNCTGTCCT GAGAAGCATG 60
40 TAATGTTAAT GTTATATCAT ATGTATATAT ATATNTNCNC TATGTATATA CATATATNTN 120
AN 122

45 SEQ ID NO:4665
SEQUENCE LENGTH:196
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05532
SEQUENCE DESCRIPTION:
50 GATCAGGGAC GGGGCTGAGC TGGAGAGTGT GCAGGATTGA TTAATGATGT CTGCCACGGT 60
CAGGCCAACT GCTGTGTTTC TGGGGCCAC AAGCTAAAAA TGGTTGAAA AAAATCAAAA 120

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EP 0 679 716 A1

CATTAATATT TGTGACATAT GAGAATGCTA TGAAAGTCAA CTTTGCTATC CATAAATAAA 180
GTTTTATTGA CATAAA 196

5 SEQ ID NO:4666
SEQUENCE LENGTH:316
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05533
SEQUENCE DESCRIPTION:
GATCAGATTG CTCAACTCCA TTATAATTG TTTCCAACT AATCTGTTCA GGCAAGATAA 60
AGATATAAAT GTGGATTGTT GCTGAGGTTA AGTCTGGTCA GATTTTNCCA NTTATGCTTG 120
AAAAGTAACC ATATTTCAT CAAATATATA ATATGTATAT NTCATAATAA TATANGCAAT 180
15 ATTAGTCTCA TTATTAATTC AAAANTCTCA TCTATATTTC ANCACTGTAG AACATTATTA 240
NNTGANTAAN TGACCTATAA NTATTTGGTG CCTGANGAAG TCACTTTGCT ATTANTNATA 300
CGGTGTAGNG TGTGGN 316

20 SEQ ID NO:4667
SEQUENCE LENGTH:168
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05534
25 SEQUENCE DESCRIPTION:
GATCTCAGGG AAGCCTGGGA GTCCCTTCTC ACCCCTCAAC CTCCGGAGTC CAGGAGAACC 60
CGTACCCCCA CAGAGCCTTA AGCAACTACT TCTGTGAAGT ATTTTTTGAC TGTTCATGG 120
AAAACAAGCC TTGAAATAA ATCTCTATTA AACCGCTTTG TAACCAAA 168

30 SEQ ID NO:4668
SEQUENCE LENGTH:311
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS05535
SEQUENCE DESCRIPTION:
GATCATCCCA TCCTTGACCA CAGGGACAAG AGGGGCCCCC TCGCCCCAGC CCCACCCAC 60
ATGGAGCTCA GGGGAAGCA GGGAGGGGTT CCCAAAGAG CCCTGCGGAG GCTAGGAGTG 120
40 GTTCTTGATG CTCACCTGAA GCCCCTAGAC GCTGCTAGGA GGGGGGGCCC TCCTGGGCCC 180
NAAATACCCN TCCGCTTGCC GCTGCTAGCG NACCCCTGCA GTCCAGCGTG CATCCACCCC 240
ACGNACGTCC CGTGCTGTGT TCCTGGGCCN TGTCCATGGC CTNAATAAAC TCTCTGCTTG 300
GGTGTGACAA A 311

45 SEQ ID NO:4669
SEQUENCE LENGTH:167
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
50 CLONE:HUMGS05536
SEQUENCE DESCRIPTION:

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EP 0 679 716 A1

GATCGCAAGC TGTGATGCA CAGGCGTCTT GTTGGCAAGC CCAGCTTCAG TTTATGTTAG 60
 ACAATCAGTA CACATGCTGG TGTGTTTTCC AATGGCCAGT NATAAGAAAT TAAATAAGTA 120
 TTTGTGAGAT TTGCTATTTT TTAATAAAGT AATTNTTTTA AATTAAA 167

SEQ ID NO:4670

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05538

SEQUENCE DESCRIPTION:

GATCTCATAC TTGTATAGAG TAATAACAAC AGTTGTACTT CCACCAAAGG CATGTGGCAT 60
 ATTTACCAAT GTCATGTATT CTGAACAAAG GCAAAAAATA CAAATTCCTA CCATTAAA 118

SEQ ID NO:4671

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05539

SEQUENCE DESCRIPTION:

GATCCTTCAA ATAGGCCCTG AGATGTGAGG TCTGCTGCTT CACTGGGGCC CGATGACTTT 60
 GGCTGGGGGA GGGGGCCTAG GGCTCTNCTC ATTGAAAGCT CTGCTTTATA CAGACCCAAG 120
 CATAACACC AGGCCGTCAC TTTGGGTCTT GGCATAAGTT CAGAACAATT CAAGTCCATG 180
 TGTCCCATGG CTGGTCAGAG CCCTGGGTCA AAACCACTCA GCCCAGGGGA GGGGATGAGG 240
 CATTGTCACC CTAGACCCCT CTTCTCTCTT CCCNCACCAT AGTGTGCAAT AAAGTGTCTG 300
 TTCTTACCAA A 311

SEQ ID NO:4672

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05540

SEQUENCE DESCRIPTION:

GATCTTGTC GAGCTGCACC TCTCTGTGAA CTGGCCATTC CTTTCGGTGC TGCTGTCCTT 60
 TTTGGGGGGG TTCCTGATTT CTGTATACAT GTAGCTTTGC CAGATATGTA CTTAGTAATA 120
 TAAACTGTAT TAATAAAATC CATTTACTGT GTAATACACG AGTTTAAAAA TTAAGAGCGA 180
 TTAGCTGTTT ACTTTGGTAA CAGGTAGTTA AGTGTACAC AAGGTGTTGT TGCAATGGCA 240
 TGACGGTGAC CTGTTGGNGG NACTAAGCCT TACAGCAAGG CATGTGCCGN ACGTGCTCCG 300
 TGGTACTTAG AGCCCTGGGG GCCCCGNTCG GACTCCGN 338

SEQ ID NO:4673

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05541

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCTGTTTA CAAGGTTTGT AGATACTTTT TTTGTTCTG TTCATAGATG GGAAGCTTCC 60
TTATAACTGA TGCAGAGAAA AATTAGTCCT TCAAATACTG CTGTATTTTC AGGAAAN 117

5 SEQ ID NO:4674
SEQUENCE LENGTH:279
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05544

SEQUENCE DESCRIPTION:

GATCAGTGT GCTAGTAGCT TGGCAGCTCT TCATAAAAGC ATATTGGGTT GGNAAGGTGT 60
NTGCNTATTT TTCAAATNAT TTAATAGATG TNTGGTACCA TTAAAAGTG GTTGTGTCTG 120
AATTTACTGT GGGGATAACA TACACTGTAA TGGGGAAAAA TTACCTAAAA CCAATTTCAA 180
15 AANGGCTTTC TNTGTATTTT AGTTAAAAA CCCAGTGCAT GATNCGCCCT CTGGAGATGC 240
AATAAACNCC TTNGTGCCAA AGGNGATTGC CNGNGGAGN 279

20 SEQ ID NO:4675
SEQUENCE LENGTH:137
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05545

SEQUENCE DESCRIPTION:

25 GATCTGTAAT AAAATAGTAT ACTGGACTGT GCATCAAAGG GATGTAAAAT TACAGTATTC 60
CAAAGGTTGA AGTTCTGCTG TTTTGTATA ATGCCTGATA CACATCTTGA ATAAAGTCTT 120
AACATTTTNC TTATAAA 137

30 SEQ ID NO:4676
SEQUENCE LENGTH:259
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS05547

SEQUENCE DESCRIPTION:

GATCATAAAA ATAAAAATGT GAATGTCAAC AATAAAAAGC AAGACTATGA AAGGCTCAGA 60
TTTCTTGCGAG TTAAAAATGG TGTCTGAGGT TGTNCTATTT TGGCCAAGTC TGTAAGAAAGC 120
TGTCATTTGA TTTTNATTAT GTAGTTCATC CAGCCCTTGG GCATTGTTAT ACACCAGTAA 180
40 AGAAGGCTGT ACTCAAGAGG AGGAGCTGAC ACATTTCACT TGGCTGCGTC TTAATAAACA 240
TGANTGCAAG CATTGGAAA 259

45 SEQ ID NO:4677
SEQUENCE LENGTH:261
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05548

SEQUENCE DESCRIPTION:

50 GATCATCATG ATGAGTTTTG CCTTATGCCT TGAATCTTNA GGTAAATAGT CATAAAATCC 60
CTGCTTTCTA AATTGCGATT TTTCTGGTG TACCNTTAAT GTGAACNTTT TGGCATTCTT 120

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EP 0 679 716 A1

CTGCAATNTT CTGATTGGAG ATTGCATTTT GACCTAGTCT GTAAGTTTTT CTGTCAGAAG 180
AGGACTTTCA TCAACTTTCA NGGNAAGATT GTTTATTGGC ATACTGTAA GTTAAGTNAN 240
GCANTTTNAA AGTNGTCTAA A 261

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SEQ ID NO:4678
SEQUENCE LENGTH:183
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05551

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SEQUENCE DESCRIPTION:
GATCCGATT TACCTTGGAC CCCTGCGTCT TGCCCTGGG AACCCANATG GGGACTGCTC 60
TGAACCTTTG GATGACATNT GTGGCCCCGG AGATGTTCTC AACCCAGGGG TGCCCTTCGT 120
AAATGTTNCT CCATCCTCAC TGTACCAGGA GTGTGTGAAT AAACACAGAC CCCCTCTGTG 180
AAA 183

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SEQ ID NO:4679
SEQUENCE LENGTH:234
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05552

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SEQUENCE DESCRIPTION:
GATCCCAGTG ACGTGGAAGT CATCAGAAACC CCACGGTACT TTGAGTACCT CTCTGCACCA 60
AGATAGCTGA CTGNTTTTCT GCTCAGTCAC AATTTTACTT GNAAGCAAGN ATTGTCCTAG 120
NTCCTNTTCC ATTATTCCAA AACGTTTAAC GTTCAAAGCA GGGTCTCATT AAAANCCCAA 180
CTACTGGTTG ATATAATTGA GATATTACAA TTTCAGAATA AACATTGAT TAAA 234

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SEQ ID NO:4680
SEQUENCE LENGTH:316
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05553

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SEQUENCE DESCRIPTION:
GATCAGAATC TTCAAGAATC AGTTAGGTTC CTCCTGCAA GAAATAAAAT GTCAGGCAGT 60
GAATGAATTA TATTTTCAGA AGTAAAGCAA AGAAGCTATA ACATGTTATG TACAGTACAC 120
TCTGAAAAGA AATCTGAAAC AAGTTATTGT AATGATAAAA ATAATGCACA GGCATGGNTA 180
CTTAATATTT NCTANCAGGA NAAGTCATCC CTATTTCTT GTNTTACTGC ACTTANTATT 240
ATTNGGTTGA ATTTGTNCAG TATAAGCTCG TNCTTGTGCA AAATTAANTA NATATTNCTC 300
TTACCTNATA NCANAN 316

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SEQ ID NO:4681
SEQUENCE LENGTH:304
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05555
SEQUENCE DESCRIPTION:

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EP 0 679 716 A1

5 GATCATCCTG GAATCCGACT CTGTCTCAGC TCAAGGGGGT TCNGAGATT CTAAGCTAG 60
 CCCTCTCATT TTACAGCTGC AAAAACGGAG GCCTGTTAAT TCAGTCATT TATGAAATCC 120
 TTTGAAATTT TTATTGAGCT CTAATTGTGT GTGAAGTATT ATGGAATGCT TCTGTACTGG 180
 AATGCATAGG TTGAACAAGA CAGAAAGGCC CAGATGGCAG AAGTTCAAGA NCTTTCACCA 240
 ACCCATATAG NGAACCTAGT AATATTAATG ACTAATGTTA ATGGANTCCA TGCTTTGTTA 300
 CGAN 304

10 SEQ ID NO:4682
 SEQUENCE LENGTH:287
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05556

15 SEQUENCE DESCRIPTION:
 GATCAAATCG GAGTACTTAG CATATCTATC ATCTCGTGCA TTTATCAITT CTTTGTGGCG 60
 AGAACATTTA AAAATCCTAT TTTCTAGCTA TTTGTAAATA TACACTACCT TACTGTTGCG 120
 AACCATAGTC ACCCTACTGT GCAATAGAAC ACCTGAACTT ATTCCNCCTA TCTAGTTGTA 180
 20 ACTTNGTACC CATTGNCCCC CCNTCCCTNC CTCCACTCT CCCCTCCCCA GNCTCTGGTA 240
 ACCACTGTTC TGTTCCTAT GAGATAAAAC TTTTTTGN CTTCCAAA 287

25 SEQ ID NO:4683
 SEQUENCE LENGTH:298
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05558

30 SEQUENCE DESCRIPTION:
 GATCTTTTGA AGATTGCTGG AATACTGGTG TCTGTTAGAA TGCTTCAGAC TACAGATGTA 60
 ATTAAGGCT TTTCTTAATA TGTTTAAACC AAAGATGTGG AGCAATCCAA GCCACATATC 120
 TTCTACATCA AATTTTCCA TTTGGTTAT TTTCATAATC NGGTATTGCA TTTTGCCTTC 180
 CCTGTTTATA CCTCAAATTG ATTCATACCT CAGTTTAATT CAGAGAGGTC AGTTAAGTGA 240
 35 CGGATTCTGT TGTGGTTTGA ATGCAGTACC AGGNTTCTCT TCGAGCAAAG TAGACCTN 298

40 SEQ ID NO:4684
 SEQUENCE LENGTH:297
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05559

45 SEQUENCE DESCRIPTION:
 GATCCATCTT CCTTACACTC CTTCCAAAAT AATGTTAATA CTCTGTCTAT CAAATGCTTA 60
 CAGTGTTCCT TAGCACATAT AGGGTAAAGT CAAAGCTCAT TAGCAGGGCA TAGGAGGCC 120
 TTCATGACCA GCCTNACCNG CACCTCTAGC TACATCTCCT ACTGNGNCA CCTCCACATT 180
 TACCCTTCGG CATGCCAACC TGCTTATGGT TACGGGGCAC AGCTTGCTGT TTTGGNTNNT 240
 GTGCCTCCCN TTGTTTGTCT TCCTGNTGNT GAANTNATGN TGGGACCATT CTTGTGN 297

50 SEQ ID NO:4685
 SEQUENCE LENGTH:120

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EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05560
 5 SEQUENCE DESCRIPTION:
 GATCAGATTC ACTGTTTCAT CATATTTATT GTAATATATT TTTTGTTTTG TAAATATGTT 60
 ACAACAAAAT GTGATTGGTC TAAATATTTT GTAATGTATA TTTAAAGGTT CAAAAATAAA 120

10 SEQ ID NO:4686
 SEQUENCE LENGTH:53
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05561
 15 SEQUENCE DESCRIPTION:
 GATCAGAGGA GTTCAGGGAG ACATACATAA AAATGTTAAT CACGGTTTTT AAA 53

20 SEQ ID NO:4687
 SEQUENCE LENGTH:363
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05562
 25 SEQUENCE DESCRIPTION:
 GATCGCCAAG TGCAGGCACG GCATCGCATC CCCAGGTGTC ATCCTGTGAC CCAGGAGGGG 60
 AAGATGACAC ACCCAATTGA GGTAATGCTG CACTTCTNGT TATAATTGGT TATTGGAAAA 120
 TGTGCCCTTA TTATCAGAAC AGTGGTGTGC GCATTCTGA TTATGGAGCT AACTTTTGGA 180
 TATCTGACTT AGATACTAAA AACATTTGGG TGTTCAGTT TTGCACTGT AGATACAACT 240
 30 TAAAAGCATG AAAGTGGTGA TTTAATTAGA TGTCTTCTAT AAAATGCACC TTGTTACATT 300
 TCTGTGAAAG GGGTCTTACC AGCGTGGAAT AACNTGGCTC AAGGGTTTGA GGGGANCANC 360
 NGN 363

35 SEQ ID NO:4688
 SEQUENCE LENGTH:109
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05563
 40 SEQUENCE DESCRIPTION:
 GATCCACGTG TACTGGCACC TCAGAAGACC AAATCATGGN CTGTACAAGT CTCTATACAA 60
 TGTCTTTATC CCTGTGGGCA GNANGCAATG ATGATAATGN CAANCAGGN 109

45 SEQ ID NO:4689
 SEQUENCE LENGTH:369
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05564
 50 SEQUENCE DESCRIPTION:
 GATCAGAAAG CATTCACTCC AGTCAGAATT CAAGGTGGGA AAAGTAGGTG TATTCTGAN 60

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CCATTTGGGA AGGAAAATCA TTTTCTGAA CANCACTACC TGCATTCTG TTTCTGCAGA 120
 CAATCAAAAA ACAAACCANT AAAANTAAGT AAGTGAANGA AAGGCCANTT AGCATTATTC 180
 ATTTGCCTTA GGTTCACAGG GTCACAGATT CATTAGCTTA ATTACATCCT CATTTTGGNT 240
 GCCAAAGAAT GGAGCAAGAG CANTCAGTAT TGCTANCTGG CTCTTGCTTC TTCTTCCTGG 300
 GTTTGTTTTG GTTTNCAGA GAAACAGGGA AGNGAGGGCA TTNGCNNAGT ATAATTGGTN 360
 TATAGGAGN 369

SEQ ID NO:4690
 SEQUENCE LENGTH:70
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05565

SEQUENCE DESCRIPTION:
 GATCATAAAT GTACTTGCTG AATCAATCA TTTTAAACA GCCAATAAAG TTTGATAATT 60
 CATCTCCAAA 70

SEQ ID NO:4691
 SEQUENCE LENGTH:293
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05566

SEQUENCE DESCRIPTION:
 GATCCTCAAG GCCTTGCTCT NCCCCGTGGA GACGCTTGCT CGGATGAGCT CAGGAAACAG 60
 TACCGGCTGC GTGGCAGGTC TGGGTGTTGT GTGCGAGGAC GTGGCCTTTG CACACCGCTG 120
 TGTTCCTCAGA GGTCTTAGG AGATATTTT TTTTGTCTTA GGGGGACTGT NTAAGTTCA 180
 GACAAATCAN GCTGGGTGTG GAGAGAGTCT GAAATACGTC AGTGAAGTAA GTAGCAGTGA 240
 GCGATTGTGA ATTTGNANTN TAAATGGAAA ACCGGGTTTT TACCGGNGTT TTN 293

SEQ ID NO:4692
 SEQUENCE LENGTH:251
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05567

SEQUENCE DESCRIPTION:
 GATCAAATC TTCATTGAAG TACTCATNAG GCGTGATGGC TGTGGGGTTG TTTGCAGTAG 60
 CACATTNCGT GTGAGGTCC TGCTGAGCCA GNACTCAGGA GAGTCAGAAA TGCCAAANN 120
 TGTTCACAAG TGAAGGCCTG TGGCACTCAG TGTCTGAGGT GGACGTGTTA ACCAGCTAAA 180
 GACCGGGAAG TTCTATTAC TAACTTTTT GCATGGAACA AGAAAACTA TGAGGATATC 240
 ACCAAACTAA A 251

SEQ ID NO:4693
 SEQUENCE LENGTH:97
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05568

EP 0 679 716 A1

SEQUENCE DESCRIPTION:

GATCCATCTT GCTTTTGCCT TATATAAAGA CTACAGTTAT GGAAGTNTGG AAAACTGTGG 60
CTTCTCAATA AATATTCAGA TGCCTAAGA NTATAAA 97

SEQ ID NO:4694

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05570

SEQUENCE DESCRIPTION:

GATCTCACAA AGTACAAAAC GAATGCCTTT CTTTCTTGT TTATAATGGT CACTCACTGT 60
GTTTGGTTAC TGTCAAGAAA TCAATAAATG TGTTAACAA GTTAAA 106

SEQ ID NO:4695

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05571

SEQUENCE DESCRIPTION:

GATCAGTNGA TATTAAGATG AGATTACAAA TTTTNTTAAG TTCAGCCATT ATTACTTTTG 60
GTATCCCAGA ACATGACAAA TTATGAATAA AACAAGTATA CATAAA 106

SEQ ID NO:4696

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05572

SEQUENCE DESCRIPTION:

GATCCATAAA ATTTTATTAA TCAAGATATC ATATTAAAGT ATTATTATAT TAATTTATGA 60
CACCAAATTT TTAAACCAAT TTTATGTTTT TCCTTATGTA TCATTATAAA CCCTATTGCA 120
TTTTATAAGT AATANANTAT TTTNAGAAA 149

SEQ ID NO:4697

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05573

SEQUENCE DESCRIPTION:

GATCGCGACG GCTGGTTTGC ATCGCCAGCT TCTATATATT ACGGCCTTTT TTTTGCTGG 60
ATATTATCTT GTAAAACGTG AAGACTACCT GTATGCTGTG AGGGACCGTG AAATGTTTGG 120
ATATATGAAA TTACATCCAG AGGATTTTCC TGANGAAGAT AAGAAAACAT ATGGTGAAAT 180
TTTTGAAAAA TNCCATCCAA TACGTTGAAG TCTTCAAAAT GCTTGCTCCA GTTTCCTGA 240
TACCTGCTGT TTCTGAATTT GNTGGGGCAT GTTCTTATG GCANTTGGAG GCTNATTGNT 300
AATNTGTATG TTGGCACCTT GTNATTAAAA TACGGGGCCA TGNNANAAAA AAAAAA 356

EP 0 679 716 A1

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SEQ ID NO:4698
SEQUENCE LENGTH:190
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05574
SEQUENCE DESCRIPTION:
GATCCACCTG CTTTGGCCTC CCAAATGTTG TGTCTTTTA AAGTATCTAC AGTAACCTTG 60
TATCAACTTA GTTGTCACT CTATTAATAC TAAATTTAGC TCCTTCAAAG CAGTTGGAAC 120
TATGTGCTAC ATAAATTCA GTTTCACCCA AGGGAAGAAG TGAAATTAGT GAATAGACAG 180
TTACAGCAAA 190

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SEQ ID NO:4699
SEQUENCE LENGTH:81
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05575
SEQUENCE DESCRIPTION:
GATCCGNTCC CAGACGGCCT TGGACTGCTT GCATTTCCTC GGAGAAAAAG GGGTTAATAA 60
ATGGGCCATC CTTTCTGAA A 81

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SEQ ID NO:4700
SEQUENCE LENGTH:89
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05576
SEQUENCE DESCRIPTION:
GATCACTGTG GGGTCAAGAA TGTCTTACAT GTTTTATTCA TCATTCTTGA NGGAAGAAAT 60
AATTCAAACC TTGGAATTAA AAAGTCAAA 89

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SEQ ID NO:4701
SEQUENCE LENGTH:311
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05577
SEQUENCE DESCRIPTION:
GATCTTGGCA AGAAACCCTA ATCTCCCTCC AGAAACAGTG GACTCTCTAA AAAATATCCT 60
GACTTCTAAT AACATTGATG TNANGAAAAT GACGGTCACA GACCAGGTGA ACTGCCCCAA 120
GCTCTCGTAA CCAGGTCTCA CAGGGAGGCT GCNNNNACTC CATGTTACTT CTGCTTCGCT 180
TTCCCTTACC CCACCCNCCG GCATAANGNC ANACCAATCA ACCACGACAA AGGNAGTTGA 240
CCTAAACATG TAACCATGCC CTACCCTGTT ACCTTGNTAG CTGCAAAGTA AACTTGTNGC 300
TGNCTGCAA A 311

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SEQ ID NO:4702
SEQUENCE LENGTH:94
SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear
 CLONE:HUMGS05578
 SEQUENCE DESCRIPTION:
 5 GATCTCTCTT GCACGGGCCT TGCCAAGGCC CAGGAGGGAC TTGGGCAGTA TGTTTCATGTG 60
 GTCATATGTT TTTGTAAAAA ATTGTGAAAG TAAA 94

SEQ ID NO:4703
 SEQUENCE LENGTH:248
 10 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05579
 SEQUENCE DESCRIPTION:
 15 GATCCGAATC CGACTGTGGG GGGCGGGCTG GGAGGTGGGA GCCGCGTCTC AGGCCCGGCC 60
 GTTATCAAGG CCCCTCCGCC CCCGAACCCT GGGGAGCTGG ACCAGGAGGT GGAGGCTCAG 120
 GGGACCCCAT GGGGACAGGC AGAGCTGGTC TCCTCCAGC AGACGGAGCC AGGACGGGCA 180
 CAAGAGTCTT GGAGGTTTGC GTGTTTCTGC TAGAATTAAA AAGTTAAATT TAAAAATGAA 240
 20 AATGNAAA 248

SEQ ID NO:4704
 SEQUENCE LENGTH:66
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS05580
 SEQUENCE DESCRIPTION:
 GATCAGCAAA GTGAGACAAA AGAAGATACT TCCCAAAGA AGAAAAAGAA AAAATTGAGG 60
 30 CAGAAA 66

SEQ ID NO:4705
 SEQUENCE LENGTH:65
 SEQUENCE TYPE:nucleic acid
 35 TOPOLOGY:linear
 CLONE:HUMGS05581
 SEQUENCE DESCRIPTION:
 GATCGGGTCT CGGAAGGGAA GTAGCCATCA CACCATTAAA AAGCCTGTGG ACCTTTAAAG 60
 40 GNAAG 65

SEQ ID NO:4706
 SEQUENCE LENGTH:308
 SEQUENCE TYPE:nucleic acid
 45 TOPOLOGY:linear
 CLONE:HUMGS05582
 SEQUENCE DESCRIPTION:
 GATCTTCTTA GGACATCTTT TTTAAAAAGC TGTTTAGTAT CATTTTGTGT ATATTGTTGA 60
 50 AATGCTTTT CATCAATAGC AGTCANCATT TTATCCTTC TTTTATATT CATAATGTTA 120
 TTTAAGTGC ATTGATGTAC TGTATTGACT TGGGGTTTGC TTATTGTGA CTTAACATGT 180

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EP 0 679 716 A1

GTACATGCAT GAAAGCATTT TTNGTTGTTC CCTGATAGTT ACATTTCAAC CTTGGGATTT 240
 TNCCAAATNA CTTAAGANGT TTAATGTGAG TNAAAGATTT TTTTACCCTC NTTTTGGGAA 300
 CATCAATN 308

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SEQ ID NO:4707
 SEQUENCE LENGTH:323
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05583

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SEQUENCE DESCRIPTION:
 GATCCGGAAG ACCACGGCCA GCCAGGTGTA CGAGACATTG CTCACCTACA GTGACGTCGT 60
 GGGCGCGGAT GTGCTGGACG AGGTGGTGAC TGTGCTCAGT GACACTGCGT GGGACGCAGA 120
 GCTTGACAGT GTGAGAGAGC AGCGCAACCG TCTGTGTGAC CTTCTGGGCG TACCCAGGCC 180
 CCAGCTGGTG CCCAGCCTG GTGCNTGCTG AAGCCAGTCC TTGGAGCCCA TANCTACCCC 240
 CTGCCTGGTG AGGATGTCTT GTTTCCTGAG GGTAGGCCGG TTGTGGAAAA GCCTCANNAC 300
 NAGTGNTGCC TNNAGGCTGN GAN 323

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SEQ ID NO:4708
 SEQUENCE LENGTH:302
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05585

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SEQUENCE DESCRIPTION:
 GATCTTCCTT TGGAACCAGG CACATTTGGC CCCTTCTCAG TGA CTGCACT GTGGA ACTCT 60
 TCTTAAGAAA ATATTGAAAA CAGCTTAATG CTTTCATATA GTGACCGACA TTTAGTTGAA 120
 AACTACTGCT GCATAGCAAA TATTGTGACT CTTTCATGTG CCACAGGAGC TCTTGTGTGG 180
 GTTTAAAGCT ATGAAGTGTA TTCACATTGT GAAGTTTTAA TTATCTTTAT TGAAATTAAT 240
 TGTGTAAGAAA TGGTATGTGC TCTATTAGGT ATTCAGTTTG TATGTGAATT CTATAAAGAA 300
 TN 302

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SEQ ID NO:4709
 SEQUENCE LENGTH:302
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05586

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SEQUENCE DESCRIPTION:
 GATCCCTCTC AGCTACTGGG AGCTGCTTTG TGCCTTGGA GCCTCAAGCT GAAATGGATG 60
 TCAGCCTCAA GTTAACTCC AAGAGGGTTC ACCTTGTTTC TTGAACAAA ATGTGCTGCC 120
 TGTGCTTCC CTTTGCCAGG AGTGGTGTTC CCTTTCCAC AGGTCTGGAC CACAGTGTCT 180
 CTAGCTCCCG CTCCTGATA CTTGGTTACT GTGTGTTTCG GGAAAAAAGG ATNCACAACA 240
 TGAATATNCA CTAAGCTGTA ACAGGGGCCT GCTGCANCTA TAGTATTTCC TGAAAAAGTA 300
 TN 302

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SEQ ID NO:4710
 SEQUENCE LENGTH:161

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05587

SEQUENCE DESCRIPTION:

GATCTTGCCT CTTTCCTCCT TCATGAAAGC AGCACACATT GTGTTAACTT ATGTCTCTTG 60
TTAAATNAGC TTAATGTCTT TGTGTTTTGT CCAAACTGT ATTGNNNNA TATTGTTTAA 120
TGCAAATNAA GGAATGCAAT AAAGAGTAAA TATACTTGAA A 161

SEQ ID NO:4711

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05588

SEQUENCE DESCRIPTION:

GATCAGAGCG TGGGAGGAGG TGGGGGTGGA CGTCCATCCG GTGAACAGTG AAGGCGTTTG 60
TGAGGTCTTT CTGGTCCCAG CATGAAATAA AGCCTTGGCC TGGGGGCCGC TTCATTCAA 120

SEQ ID NO:4712

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05589

SEQUENCE DESCRIPTION:

GATCTGGCAG TACCCAGCCC TTGTGTGTGT GCGTTANTCA GCACCTGCCC AACTGCGAG 60
CCCCCGTAGG ATGTGCCTTG TCCTTCCCTG TTTCAGCACT TAACACACTA CCTGGTACAG 120
AGTATGTAGT GGGCATCTGT TGAATGAATG CTTTCCCAG TAGCAGTGTA TTCATACAAT 180
ATTAATATAA TTGTCCCCTG GCTTACAGAT ANAAATGAAA GCATCAAGTG CCCAGTTGAG 240
TGAGACCCAG GTGTTCTTCC TNCACCCCTT AGTGGTTCCC CTGGGGGCAG NTCTTTN 297

SEQ ID NO:4713

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05590

SEQUENCE DESCRIPTION:

GATCTCTGCG CTAGGTCGTT TACCGCTATT TATTTTATG GGGAAAATAA AACTCTCAA 60
AATGAAA 67

SEQ ID NO:4714

SEQUENCE LENGTH:50

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05591

SEQUENCE DESCRIPTION:

GATCACTAGA TGATTCTAAC ATCGAAATAA ACCTCTTTT ATATGGCAAA 50

SEQ ID NO:4715

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05593

SEQUENCE DESCRIPTION:

GATCTGGTGC GTGTGGCCCT GTGGGAGTCC ACTTTCCTCT CTCTCTCTCT CTCTGTNCCA 60
 AGTGTGTGTG CAATGTTCCG TTCATCTGAG GAGTCCAAAA TATCGAGTGA ATTCAAAATC 120
 ATTTTNTTT TCCTCCTTNT CAATGTGATG GAATGAACAA AAAGGAAAAA ATTCAAAAAA 180
 CCCAGTTTGT TTTAAAAATA AATAAATANA GCAAATGTGC CANTTAGCGT AAA 233

SEQ ID NO:4716

SEQUENCE LENGTH:282

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05595

SEQUENCE DESCRIPTION:

GATCTTGCCCT TGAGGAAGAC CCAGGCCATG TTCCCAAAGG NCAGCGGGGG CCCTGGATTG 60
 TAATGCAGCC TCGGGACAGG GCTGAGGCCT GCGGGGGAAG ACCTATACCC CACGACTGGG 120
 CCTGGNTTCA CCTCACCTA ATCCCCCGGG AGGAGCTGAC TGATGCAAAA AGCTGAGGNN 180
 GCCTGCTGGG NNGTGGCTGT TTTNATGNCC CAGCCCCGNN AAGTTGGGGA GTGTTTGTGG 240
 GGTNCAAG CCCTNCCCCA GNCAGGAGAG AACCTTCCTN TN 282

SEQ ID NO:4717

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05598

SEQUENCE DESCRIPTION:

GATCTAGGAC TAATTCAAGG GTCTAGATT ACCTCCAAAC TTTGTTTATC TACAAAAAAT 60
 AAAAATCTAT CTCTTTAAA 80

SEQ ID NO:4718

SEQUENCE LENGTH:204

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05599

SEQUENCE DESCRIPTION:

GATCCTTCCC CTCTCAGACA CCCCTCTTTC AGCTTAGAAT TTGGGGAACC TATAGAGAAG 60
 TCACAGAATC CCATGAAAGG GAATGGGGCA GGAGCCAGGG GTGTTTTTNC CCAGTGCAGG 120
 GTTGTGTCTT TGTGTCTCTG TCTCTGTGAC TGTAATCCT GCCCTGCCCC ACTCCAATA 180
 AAAGCTTTGG TGTATAGGCT CAAA 204

SEQ ID NO:4719

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SEQUENCE LENGTH:83
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS05600
SEQUENCE DESCRIPTION:
GATCAGTTTG TTTCTTTCTG TGCTGGTAAC AATAAGCGTC GCACAGACAT GGTTCAGGT 60
AANTAAATCT ATTCTATGAT AAA 83

10 SEQ ID NO:4720
SEQUENCE LENGTH:289
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS05601
SEQUENCE DESCRIPTION:
GATCTCTGGA TTGTGTTATG TCAGTGTTGG TAGGTTAGGA ACTAGATTTC CCAGAATCCA 60
TTCCATTTGT NATTCATGA TACAATTGAC CAGTAACCTA TCTTACATGA GATTCGGAAG 120
20 TAAGTTAAGA AGGCATTAGT CATGGTTTGG AAGCACCATA CAGGGAGACA GCTGTGTGAA 180
TACAGGCTGT ATGGACACTT GCTTCCATCC CATTNNCTG CTTCTTTGGG TTGCAATCA 240
AGTGATCTCT CAAAACGACT TGACTTTAAT TTTCTCGGAG GTGATAGTN 289

25 SEQ ID NO:4721
SEQUENCE LENGTH:235
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05602
30 SEQUENCE DESCRIPTION:
GATCAAGTCT TACATGCCCA TTCAGCTTCT AGGCCCCCCT CACCTCCCTG CCCTCATTCA 60
CAAGTGGCCC TGAGACACGT GAACACCTCC CTNCTATGCA TCACAAACCT TCTCCACCGA 120
GCTTTGGTGC TTTNGCCTCT GGNACACCTA ACTAGCATTG GCAGAGGAGA GTCTACACTC 180
35 TTTNCTNAT TCAGGGTNGA TGCTTTAAGA AATNCTGNCT CTTGTGNANG CAGAN 235

SEQ ID NO:4722
SEQUENCE LENGTH:276
SEQUENCE TYPE:nucleic acid
40 TOPOLOGY:linear
CLONE:HUMGS05603
SEQUENCE DESCRIPTION:
GATCGTCAGC ATCATCGGAG GCATCAGTTC CTTCTTCATC TTCATCTTCC CAGGTTTGTG 60
45 CCTCATCTGT GCAATGGGTG TCGAGCCTAT AGGACCAAGA GTCAAGTGCT GCCTGGAGGT 120
CTGGGGAGTG GTCTCTGTGC TGGTCGGCAC CTTNATCTTT GGGCAGAGCA CGGCGGCAGG 180
GTCTGGGAGA TGTTCTGATG GGCAGCCAGT GCCGGGCAGG AAGGGGCCCT CCGGGGGCTG 240
ACCTACGTG GCTGCTGTAT GCAGNNGGGA GANCAN 276

50 SEQ ID NO:4723
SEQUENCE LENGTH:278

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05604

SEQUENCE DESCRIPTION:

GATCAAGGTC ATAGAAAGTG AAGATTATGG CCAACAGTTA GAAATCGTAT GTCTGATTGA 60
 CCCGGGCTGC TTCCGAGAAA TTGATGAGCT AATAAAAAAG GAACTAAAG GCAAAGGTTC 120
 TTTGGAAGTA CTCAATCTGA AAGATGTAGA AGAAGGAGAT GAGAAATTTG AATGACACCC 180
 ATCAATCTCT TCACCTCTAA AACACTAAAG TGTTTCCGTT TCCGACGGCA CTGTTTCATG 240
 TCTGTGGTCT GCCAAATACT TGCTTAANCT ATTTGGAN 278

SEQ ID NO:4724

SEQUENCE LENGTH:280

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05606

SEQUENCE DESCRIPTION:

GATCTGGAAT GCNACCGGAG CACTTGCTCT GAGGAATCCC AGGGTGACTC TGTGCGGGAA 60
 GAATCCGGTC ACAGCCTCCC CTCAGAGACA GGCCTCANTT CGAGGGCAGC CCATTATCTG 120
 TCGCAGCATC TGCCATGTCC CTNAGACTGC GGGAGGCAGG GNATGCATGG GTGTCCCAT 180
 CTGTCCCTGG TGAGAAGCAA GGCTAGCTCT GCCTTCCACA TGCTTNTNAG GATGCCAAGA 240
 GGCCTAGGAA CCCAGNAACC CCCTGNGAG GAGCTGTGNN 280

SEQ ID NO:4725

SEQUENCE LENGTH:253

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05607

SEQUENCE DESCRIPTION:

GATCTGCATT CACCTTAGGG CTTAGCCTCT NATTTTATGA ATTTTCAGGC TGTGATTNGT 60
 GTTGGATGGC TAAGNTCTAA GATAATGCAA ATAGCCCCAA TCTTTAAATA TAGCGGTGCT 120
 AAGTTGAACA NGTAACACAN TACAGAAAAT GCTGATATGA ATACTTAGTA ATAATACAAA 180
 AGTTCCTGCT AAATTATATA TGTGTATCAC TGCCTGNCNN GANACCCAC TTNNCTTTTC 240
 TAATCCAGCN CAN 253

SEQ ID NO:4726

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05608

SEQUENCE DESCRIPTION:

GATCCAGATA GCCTAGGGTG AGGGTGACAG AGGGACAGTG GGCTATGCCA CTAGGCCCTG 60
 GTCTGGCTTT GGAAAGACCT NTGAGGGGAA ACCTTCACCC AGCACCCTATG CCCCCTCTG 120
 CTGAGGCCAG AGGAAGGGAG GCCTGAGGGG CAGATTNGTT CATGCCTGGG GTGGAGGCTA 180
 AGCCTGGACA CAGTCAGGGC GGGGCTGGCC AGCTGTGCGA GAACACAAGC CACGCCTGCN 240
 ATGGTGCTGC ACCCCTGGGT GTCCCTGCCT TGGCCCTGCT CTGGTCACTT CAAACATNGT 300

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SEQ ID NO:4727

SEQUENCE LENGTH:295

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05610

SEQUENCE DESCRIPTION:

GATCATAAAA CAATAAAAGT AGTTTTCTAA TGTTGCTCAT AAAGTGGGAC TGAAAAATCAT 60
 TTCAAATCCA GGAGACAGTC CAAAAATGGT TATTGAGCAN TGGCCACATA TTGGAATAAA 120
 AATTTTNATT TTCAGTCTGT GTTTGGGAA AACAGCATT CATTGCATAG GTGGATAAGT 180
 NCTAGAATAT TGGCTAANCA TATNGTCATT TGCTATAATG CATATGCATT NCAGAAGTTT 240
 TCTNGCTCCT GANGTATNAT GGGGGGTTTT CTAGCTCCCN TATNGCNAAA ANTTN 295

SEQ ID NO:4728

SEQUENCE LENGTH:99

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05612

SEQUENCE DESCRIPTION:

GATCACTTGA GCCAGAGGTT AAGTCTGCAG TGAGCTGTGN TTGTACCACT GCTCTCCAGC 60
 ATGNGCAACA GAGCCGGACC CTGTCTCACC AAAGNCAAA 99

SEQ ID NO:4729

SEQUENCE LENGTH:329

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05613

SEQUENCE DESCRIPTION:

GATCCATTGT CGGGAGCTTG TGGCACATCA CCTTCTACT CTGCAGTCTT CCCTGCCTCT 60
 NAATTCCGTT TATGTCTACC GTCCCCCTCA GCACACCCTG GTGACCTGTG ACAAAGGAGT 120
 GTTCAGATTA CATCCCTCCT CTGTCCAGG CCCAGACTTC TCCAAGGACA ACAGCAAGCC 180
 AGAAGTGCCA GTCAGAGGTT NAGTAGCCTT TTACCATCAT CTCCAGNTG CCAGTGGGTG 240
 CAAGCAGACC TCTACTAAAC GNAAAGTAGA GGGAAATGGN AGTGGATGAC TTNTGTGATG 300
 GANTCAAACG GCTCTATAAT GGANGGTTN 329

SEQ ID NO:4730

SEQUENCE LENGTH:140

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05614

SEQUENCE DESCRIPTION:

GATCCTGCCC TTTCTGGGT NGGTGGGNGG TATAAGCACT GCCACCAGAA CTGTTGGGTG 60
 CTAGCTTCAA AGCCCAACAC AAGAAATACT ACCAATTATG AAATTACAAC AACAANTNTA 120
 AATGACATAA TTTTTGAAA 140

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SEQ ID NO:4731
 SEQUENCE LENGTH:190
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05615
 SEQUENCE DESCRIPTION:
 GATCCATAGG ACTACCGCAG CCCGGACTCA CCAACTTGCC ACATGTTCTA GGTTCAGCA 60
 ACAAGACTGC CAGGTGGTTG GGTCTGCCT TTAGCCTGGA CCAAAGGGAA GTGAGGCCCA 120
 AGGAGCTTAC CCAAGCTGTG GCAGCCGTCC CAGGCCACCC CCATGGAAGC AATAAAGCTC 180
 TTCCCTGAAA 190

SEQ ID NO:4732
 SEQUENCE LENGTH:159
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05616
 SEQUENCE DESCRIPTION:
 GATCCAGCC AGGAAGGCTG GGGGCCCTAC TGTTGTCCC CTCTGGGCTG GGGTGGGGN 60
 AGGGAGGAGG TTCCGTCAGC AGCTGGCAGT AGCCCTCCTC TCTGGCTGCC CCACTGGCCA 120
 CATCTCTGGC CTGCTAGATT AAAGCTGTAA AGACATAAA 159

SEQ ID NO:4733
 SEQUENCE LENGTH:295
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05618
 SEQUENCE DESCRIPTION:
 GATCACAGAC AAGCTGGGCC TGCATTCCCT TCGTCACCGT AACTGGTACA TTCAGGCCAN 60
 CTGTGCCACC AGCGGGGACG GGCTGTACGA AGGCCTGGAC TGGCTGGCCA ATCAGCTCAA 120
 AAACAAGAAG TGAAAGCCAG ACAGCCCTAA CAAAGCACCC CACCCACCCC TGACATACCT 180
 ACTGTNACCC TGCCCCAGTC CTACCCCTTC CTCTCCATGC AAGTNTGGCC AGGGCCCTGG 240
 GTATCATGTC CACATGCCCC GCAAGAGCCT TGCTNCCNT TGCCTGCNCT GCTTN 295

SEQ ID NO:4734
 SEQUENCE LENGTH:295
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05619
 SEQUENCE DESCRIPTION:
 GATCCACCCA CCTNGGCCTC CCAAAGTGCT AGTATTATGG GCGTGAACCA CCATGCCCAG 60
 CCGAAAAGCT TTTGAGGGGC TGACTTCAAT CCATGTAGGA AAGTAAAATG GAAGGAAATT 120
 GGGTGCATTT CTAGGACTTT NCTAACATAT GTCTATAATA TAGTGTTTAG GTTCTTTTTT 180
 TTTTCAGGAN TNCATTTGGA AATTCAAANC ANTTGGCAAN CTTNGTATTA ATGTGTTAGG 240
 TGCAGNGGN CATTGGTATT CTGGGCACCT TCCTAATATG GCTTTACAAT CTNNN 295

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SEQ ID NO:4735
SEQUENCE LENGTH:259
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05621
SEQUENCE DESCRIPTION:
GATCTCAGCA ACAGCTGGGT AATAAGACTA GCATAGCTCA AACTATCCTG CCAAACGCTC 60
TCATCTGATT TTNCTCCCT TCTCCCCAA CCTCCAATCA CCCTGAGTCA CCTGTAAATN 120
CATTTGTNAT TCAAAGCGGA ATAACANGTT GTCCCTAGCA NNNCCGCTGA GCGCTTTATA 180
ATTTTNTGGT GTATTTTGT NAGTAGGTAG CAGAGGCGGA NGTATTTTN GGTGTAATTC 240
TTGANATTTT CTGACAGGN 259

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SEQ ID NO:4736
SEQUENCE LENGTH:232
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05622
SEQUENCE DESCRIPTION:
GATCACTGCA TGTTATGATG GCTTGTAAGT GCGTTGTAA GACTTTTNTT TCAGTGTGTTG 60
TNTCCAGTA TTTGAACCTA ATTTAAAGAA AAAGACGTTT CCAAGTTGTA TTTATTAAAT 120
GTNTTTTNC TACCTTTTG TNCTGCTACT TTNCTAATCT CATTAGCTTA GCTGTGTTTG 180
TNCATAGGTT ATATNTGGTA ATAAATNTAT AGAGTGTTNG TTGTCATCGA AA 232

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SEQ ID NO:4737
SEQUENCE LENGTH:138
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05623
SEQUENCE DESCRIPTION:
GATCTGTAAG TTTATTGCT CAATGTACGA CAGCTACATA ATGACTCACA TTCATGATAT 60
TCCATCACTG AGGAACTGC TAAAGATGGT CCGTGTGTGA AATAATTCCT TAGAGAAACA 120
CGGAGCTGGA AAAATAAA 138

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SEQ ID NO:4738
SEQUENCE LENGTH:135
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05624
SEQUENCE DESCRIPTION:
GATCCAAC TGACAACGTGT GGGATGGACC TGGAAACAAG CACCTCCCCA AACACATCAC 60
CACTCCCTAG GCGGGGCGCT GTGCATGCTC TCGCATGACA TCTCCATGCT GGTTCCTGCA 120
TAGCATAAAT GGAAG 135

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SEQ ID NO:4739

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05625

SEQUENCE DESCRIPTION:

GATCGATGTT AAACGTCACA GCAGTACTTT GCTCAATAAA GGTCATATTG GAAACATAGT 60
CAAA 64

SEQ ID NO:4740

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05627

SEQUENCE DESCRIPTION:

GATCTGTGGT AGGGTATTGA GGGATGAGGG AGAAAAACGA CCTAATTCAN GTAGGACTNG 60
CAACGGCTCC CACCCTCCCT GGGGACANGG NTTAATAAAA ATTGACATCA CAAGAAA 117

SEQ ID NO:4741

SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05628

SEQUENCE DESCRIPTION:

GATCAGAAGG GTCGCGTGA GCACCCTTAT GGTCTTGCAG AACACACCAA GAAACCCGAC 60
GGCTTCATA TTTNCTGACC CTACAAACAG GTGCCTAATA CTGATGTGGA GAAAGCTCAA 120
GAGGGAATCA TCTGGCCTGA GCCTACCATG AGGCTGTTTG TGGTNCCTGGC AGAAAAGCAA 180
CAACTCGCTC CCCTTCCCAT GTATCAGTGA AAACCATTAT GCAAATAAAG AGCTGGGCCC 240
CAAA 244

SEQ ID NO:4742

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05629

SEQUENCE DESCRIPTION:

GATCTTTTTT CCTCCTTCTG TTTATNTTTT TGTTTGTTTT ATTTATAGTC TGATTTAAAA 60
CAATCAGATT CAAGTTGGTT AATTTTAGTT ATGTAACAAC CTGACATGAT GGNGGAAAAC 120
AACCTTTAAA GGGATTGTNT CTATGGTTTG ATTCACTTAG AAATTTTATT TNCTTATAAC 180
TTAAGTGCAA TNGAANGNGT TTTNCAAA 209

SEQ ID NO:4743

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05630

SEQUENCE DESCRIPTION:

GATCATATAC TGTATATATA AAANNNTTGA GATGGTAGAA ACATGTATGA NTGTACTAAG 60
 TAGTATTCCA CTGTACTCAT TCATAAGGTA GGTTCCTTA CAAACTCAC ACCAGGTACT 120
 TAAAGATGTG CTCTGCTTTT TTCCAACCTAC GGAGTGTAC TGCTTTCTAG GTCAGTCCCT 180
 GCAGACTCTT CTCAACTCTT TCCCTATAGG AAACCTACTC CGCGTCCTGC CCCCACCTCC 240
 TAAATAAATA ANGGAATCGG CGAAA 265

SEQ ID NO:4744

SEQUENCE LENGTH:177

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05631

SEQUENCE DESCRIPTION:

GATCCCTAAC ATACTGTACT ACTTGCTTNT ACAATGTGTT AGCAGAAACC AGTGGGTTAT 60
 AATGTAGAAAT GATGTGCTTT CTGCCCCAAGT GGTAAATCAT CTNGGTTTGC TATGTTAAAA 120
 CTGTAAATAC AACAGAACAT TAATAAATAT CTCTGGTGTA GCACCTTTTA CTGTAAA 177

SEQ ID NO:4745

SEQUENCE LENGTH:377

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05632

SEQUENCE DESCRIPTION:

GATCAGCCGA AGAAAGCAGA AGCTCTGGAG GCTGCCATCG AGAACCTCAA TNAAGCCAAG 60
 AACTATTTTG CAAAGNTTGA CTGCAAAGAG CGCATCAGGG NCGTCGTTTA CTTCAGGCC 120
 AGACTCTACC ATACCTGGG GAAGACCCAG GAGAGGAACC GGTGTGCGAT GCTCTCCGG 180
 CAGCTGCATC AGGAGCTGCC CTCTCATGGG GTACCCTTGA TAAACCATCT CTAGAGAGGA 240
 CATCCCTGCT GGGCTGCTGT GCAGAGTATA AGATTTTGGG CTTGTTTCATG TCCCCTCTCT 300
 CCCTATAAGG GGTGTATTG TGACACCCTA TCTNGTCANT AAACAGCATT TCTGATTA 360
 AANAANAAAA AAANAAN 377

SEQ ID NO:4746

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05634

SEQUENCE DESCRIPTION:

GATCCTGAAG TTTTGGTCA ATAGGCTCTG TCTCGTGAG AGACGGGCTG AGAGTCAGAA 60
 ATAAATCAAC CATTTNTGGT TTATTCAAA 89

SEQ ID NO:4747

SEQUENCE LENGTH:55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05635

SEQUENCE DESCRIPTION:

GATCTTTCTT CTCCCAGCTA AGAGTTCTTC AATAAATTTA AGAAATACCT GGAAA 55

5 SEQ ID NO:4748
 SEQUENCE LENGTH:244
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS05636
 SEQUENCE DESCRIPTION:
 GATCAGCAGG GACCAAACCA TTGCCACATC CCAAGGNTGA ACAAGCATGG CTGAGCACCA 60
 GAGTNTGCAC CAAGTNTGAN TTTAGGCCTG CCAAGTGGAT TTACACCCAG CACGTCCCAA 120
 ATTTGGGTGA GTGCATGCCA ACCCTGTAAA CATGTAGGGG TGGACAGGTC AACAGACAAG 180
 15 GTGACCCAG CNTCCCGGCA AACTTGATTA ACACATACTG GNCACAGCAA TTANNNGAN 240
 NTGN 244

20 SEQ ID NO:4749
 SEQUENCE LENGTH:184
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05637
 SEQUENCE DESCRIPTION:
 25 GATCGCAGGG CCNTAGGTGC CTGGACCCAG GGTGTGCCAG CCCGTCTCTN TGCAGTCCCT 60
 GGAAGGGCGC TGAGAAAGGC ACCAGCTCCT TGGACCCAC CTCCCATGCT CTCACTCTCA 120
 TCCCCGTTCT CTTGTCCACA CAGCTCTTCC AATAAAGGTG TTTCTNTTCC TCCTTCTCCT 180
 CAAA 184

30 SEQ ID NO:4750
 SEQUENCE LENGTH:282
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 35 CLONE:HUMGS05639
 SEQUENCE DESCRIPTION:
 GATCCTAGTT GCCTTTGTGT ATATTTACTG CCTGCTTGAG TGTTTCTATG TGTGGGTTTT 60
 CCCTGTATCT TGTAGAAATG TTGGGGTGTT TTCCTCTGCC ATATGGCTCG TGGCCTGCCA 120
 40 GCCAACTATT TCAGNTGTGT TTNACCTTCA TTTTGTATGA GGTGATTTAA ANNTNGTTTC 180
 ACTTTGTGTA GTGAATTCCA CAGTAGTTTT CTGANTGTNG TTAATAATGA CTTAACATAT 240
 TACACAGATA TTCAATAAAA ANGTTTATT TCCTGTTGNA AA 282

45 SEQ ID NO:4751
 SEQUENCE LENGTH:65
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05640
 50 SEQUENCE DESCRIPTION:
 GATCCCATTG TGTATAAGTT AATATGTGAT AACTATTGAA TCTTGACAA AAACAAAAAT 60

55

TGAAA

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SEQ ID NO:4752

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05642

SEQUENCE DESCRIPTION:

GATCCATCCG CGGTGTTGCC TGAATCAACC GCTCATCCCT CGGATTGCTG AGCAGGATTC 60
 ACAGGGTGGA GGCACCACAA TGTATCTGTG TCCCCAGAAA GAATACTTGC AGTTTCCAGT 120
 TGGACACTTT ATCAATAAAA TCACTATAAA CATCTGAAA 159

SEQ ID NO:4753

SEQUENCE LENGTH:352

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05643

SEQUENCE DESCRIPTION:

GATCTTGAGT TGCAGTCCAC AGCATTACACA TTCTCAGGAT AAACATGCTT GTCTCCATAT 60
 ATACTATCTG TGCCTGTAAT GAATGAAAAA TCCATCCACT CTGCTGCCAT TCACAGCCTA 120
 ATCTTCTGGA GTAGTCCAAA CAATGTTTGG AAAACATGG GACTGTATGT CATTACTATG 180
 ACTGATAGCA GAATAATAAT GCATCTNACT TCTATATAGN GATAGNCTTA CATAGGTTAC 240
 CCTTGANATT CATTAGTNTG TCATANGTTT TAGGAAAGGT AGGACCCGGN AAGNNGTTCT 300
 ANTTAGTTGT CTAATNTTT TNCAGTGNGC CAAGNNATTC ACCATGANAN AN 352

SEQ ID NO:4754

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05644

SEQUENCE DESCRIPTION:

GATCGGCTCA AAGCCTGTCA GCAGAGGGAA GGACAGAACT ACCAGCAGAA CTGTATCAAG 60
 GAAGTGAGC AGTTCACCA GGTGGCCAAG GCCTACCAGG ACCGCTATCA GGACCTGGGG 120
 GCCTACAGTT CTGCCAGGAA GTGCCTGGCC AAACAGAGGC AGAGGATGCT GCAAGAGAGA 180
 AAAGCTGCAA AAGAGGCCGN CGCTGCCACC TNCTGAGGCA GCTGTGGGTG CCCCTGCTGT 240
 GTGGCTCTGT ATNACTTGTT TGCTTGAAAT NTAAGGCC TNGCAAACCC TGGGAAA 297

SEQ ID NO:4755

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05645

SEQUENCE DESCRIPTION:

GATCCCAGGC CTGTGGCTAG CAGCACTGGG GACAGGAATG GCTGGTCCCT TGAGGAGGTC 60
 GTGACAGGCT CAGCCTNGTN GTCTNGAGGG GACTCGGAAA TAAATGTAG CAGCTTTCCT 120

GCCAAA

126

SEQ ID NO:4756

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05646

SEQUENCE DESCRIPTION:

GATCTAAAA GTCAAAATC TGAAATTTAA TAATATGAGA CTTAACTGA NTATAATGTT 60
CATTTAGAAG TTGCTGTGGT CCACTTCATT TATANGGAAC AAATATTTT ACAGTAACT 120
ATAGCAACAG CAAAAGCCCT CTCTCACCT GATAGGAATG GGTGTGCTGG GTGTCTAGAA 180
GTTAGATTCC TGCTGAATAG ANTTAGCCAT CCTTAAAGA TTTAATCCA ATACTGAACT 240
GGTTTATAAA ANGCTTTCTC TATTGTANTG NACTGTAAGT AGTGAAATTC TGTATATACT 300
GCTATTNGCT GNCTGTN 317

SEQ ID NO:4757

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05647

SEQUENCE DESCRIPTION:

GATCAGTAAT CCTATTAAAG AAGCGGAAGA AGATACCTCA GAAAGGTCGG AAGAAAAAAG 60
GTTTTCGGAG GCGGCGGTGA TTATGGGTGT ACATATTTGT ATATTTTTG TCATCCTGAG 120
ATACTTCTAA TTTCATTGTA TATAGGTGGT TTTCCCTGGA ATTCATTAAT TGTGTGCTT 180
GGACATGTGG AAAGAGCCTT ACTAATAAAA TTGATTTTAC TTATGAAA 228

SEQ ID NO:4758

SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05648

SEQUENCE DESCRIPTION:

GATCAGTTCT GAAACAGTTT CTTTCTGAAA CAGAGAAAAT GTCCCCTGAA GACAGAGCAA 60
AATGCTTTGA AAAGAATGAG GCCATACAGG CAGCCCATGA TGCCGTGGCA CAGGAAGGCC 120
AATGTCGGGT AGATGACAAG GTGAATTTCC ATTTTATTCT GTTAAACAAC GTGGATGGCC 180
ACCTCTATGA ACTTGATGGA CGAATGCCTT TTCCGCTGAA CCATGGCGCC AGTTCAGAGG 240
ACACCCTGCT GAAGGACGCT GCCAAGGTCT GCAGAGAATT CACCGAGCGT GAGCAAGGAG 300
AAGTCCGCTT TN 312

SEQ ID NO:4759

SEQUENCE LENGTH:95

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05649

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCAAGGTA AGAAACATTG TAAAAAATAA TTACAAAAGT GCTATTTGTT TCCTAAAAAC 60
AGTGATTCTT ATAAAAAGG TGTGAGANCT GGAAA 95

5 SEQ ID NO:4760
SEQUENCE LENGTH:336
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05650

SEQUENCE DESCRIPTION:
GATCCTNTTT CCANTTNAAG GGAAGTGTAA GCTTTTATCT TTTAACCAAC TGAACAATAC 60
ACCAAAAGCA GCCTAGGGAT GAGCATTCTT TTGAAAGCAA TTAGTTTATT CACCTGGTAT 120
TAAAACTATT TACTGTATAA AAATCTGTGA CTTCATGAAG TTGATTNTA AAGGCAGCAT 180
15 CANAACTGA NANGGAAGGG AAANANTAGG CAGCTTCTCT GCACTTGTTC GGAGCTCCCC 240
AAANCAGGGT GCCATGGGGN AGTGGGCATC AAGNCCGGGC TGCCCTTTCG NGGTCANCTT 300
GTGGCAGTTC AGAGTCANGG TTTTCTCTNC GCTGGN 336

20 SEQ ID NO:4761
SEQUENCE LENGTH:310
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05651

25 SEQUENCE DESCRIPTION:
GATCCAAATT CCCAGGTCGG CGCCTGCATC GTGAATTCAG AAAACAAGAT TGTCGGGATT 60
GGGTACAATG GGATGCCAAA TGGGTGCAGT GATGACGTGT TGCTTGGAG AAGGACAGCA 120
GAGAATAAGC TGGACACCAA ATACCCGTAC GTGTGCCATG CGGAGCTGAA TGCCATCATG 180
30 AACAAAAATT CGACCGATGT GAAAGGCTGT AGTATGTATG TTGCCTTGT CCCTTGTAAT 240
GAATGCGCTA AGCTCATCAT CCAGGCAGGT ATAAAAGAAG TGATTTTCAT GTCTNGATAA 300
ATACCATNTN 310

35 SEQ ID NO:4762
SEQUENCE LENGTH:364
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05652

40 SEQUENCE DESCRIPTION:
GATCCCCTCC AAGGAGCACC CATATNACGC CGCCAAGGAC TCCATCCTGC GCAGGGCCAG 60
GGGCATGTTT ACTGCCGAAG ACCTGCGCTA GGGGACTCCT CATAGCCCTC AGCCCTTCCC 120
TCGTTTCCAG GCCTCTCCCC AGGCTTGCCA TCAGCCTTCT TTACTTTTGG AGCCTCTGAT 180
45 TTCCAATTCC CTGCTNCNNN CCACTCCATT AAGAGGCTAG GTGAGGCGCT TCTAGGTTGC 240
TGGGGCTCTG CTGGTTAAGG AACAGGAAGC CTGACCATCT CCCTCCACTA CCTCTTCCCT 300
GTGCTGTTAC ACAGTGTCTT TGTGATGTT AAATTAAAGT CATATTCTTG CTTCTTTCCG 360
NAAA 364

50 SEQ ID NO:4763
SEQUENCE LENGTH:333

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EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05653

SEQUENCE DESCRIPTION:

GATCGTCTGG AAGCAGCAGA GATGTACAGA AAAGCTGCTT GGGAAGCGTA TTTGAGTAGA 60
CTTGGTGTTT GAGTGCTTCA GATACATTTT TCAGATACAA TNTGAAGACA TTGAAGATAT 120
GTGGTCCTCC TGAAAGTCAC TGGCTGGAAA TAATCCAATN ATTCTGCTT GGATTCTTCC 180
ACAGGGCCTG TGTAAGAATG GGTTCCTGGAG TTCTCATGGG NCTTTTAGGA AATATTGAGT 240
AATTTGGTAA NTCACCGNAT TGGTTACTAT ANATAAGGTC CCANTNCNTT AAGGCTTGAT 300
AAGGTGAATN GNGGTGNGNN NTNTGGGGG AGN 333

SEQ ID NO:4764

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05654

SEQUENCE DESCRIPTION:

GATCCTCCAA AATTCAAACA AGGAAAAATC TCTCCAATC TCTCCTTCC TCCATCCCTT 60
TTCTTTACTT CTCATCCCAT ATATAATATT ATATAANGCA TACGTAATAA AAGACATTCA 120
CTATTATTAA A 131

SEQ ID NO:4765

SEQUENCE LENGTH:271

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05655

SEQUENCE DESCRIPTION:

GATCTCTTTT GCTATGGCTC ACATTATTTT CATAAAGITG CTGGCCAGCT TTTACCTCTT 60
GCATATAATC TGTGAAGAG GAATCTGTTT GCAGAAATTA TTGAGGAGCA TCTGGCAAAC 120
AGAAGTCAAG AGAACATAGA CCAACTTGCT GCATGAGTAA GGTGGCTTTG NTTGGTGTAC 180
AGTATTTCAA AGGACTAGTA TTAANCITGT GATTNNGGTT TTGTTTTTAA GGGGTACANN 240
NNGTAAGCCA TTNCTTAAN AACCGTTGAA A 271

SEQ ID NO:4766

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05656

SEQUENCE DESCRIPTION:

GATCTTTCTC TTGAGTCATT TTATTTTAT CATGGACTAG TCGTGCTCC GTGTCCACCC 60
CAATAAAAGG GTCTTTCCTA CTTGAAA 87

SEQ ID NO:4767

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS05657

SEQUENCE DESCRIPTION:

5 GATCTGGGCA ATTTTGGCCT TGACTCTTC CTGGCTCCAG AGCTCAAGCT TAGANGCCAG 60
 CCCTGCTATT TCCAGCCTCC TGAAGGCTCA GCACGGTGAG GCCTGACATC CTGGGGAAGG 120
 GCAACAGGGA GACCTACAGG ATGNTGGCTG CTTGCAGACT GGTCAATGGG GGATGACGGT 180
 GGGGAGGTTG NCAGATGTGA GACTTNGTA GCATTNGTA CACATGGCCC TGTAGTTGTC 240
 10 CTTTNGAAGA ACATCANTNA AAATATANGG GTNNTTAAAT TNTGGGNAAN AAN 293

SEQ ID NO:4768

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05658

SEQUENCE DESCRIPTION:

20 GATCTTGCTA GGGAAAGGCCA CCTTGATGTC CGTGCTGGTC AGTGCCCTCG TGCTGATGGC 60
 CATGGTCAAG AGAAAGGATT CCAGAGGCTA GCTCCAAAAC CATCCAGGT CATTCTTCAT 120
 CCTCACCCAG GATTCTCCTG TACCTGCTCC CAATCTGTGT TCCTAAAAGT GATTCTNACT 180
 CTGCTTCTCA TCTCCTACTT ACATGAATAC TTNNTCNGT TTTTNTGTTT CCCTGAAGAT 240
 TGAGCTCCCA ACCCCCAAGT ACGAAATAGG CTAACCAAT AAAAAANTGT GTGGTTGGGG 300
 25 CCTGGGGNGC AAA 313

SEQ ID NO:4769

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS05659

SEQUENCE DESCRIPTION:

35 GATCCCTCA TACCCCTGT GCCCACTTCG GAGAACCCNT TCCGGGAGAA GAAGTTCTTC 60
 TGTGCTCTCC TCTGAGCTCC CCTGTCCCTT CTCACAACTN CTCCTTTTC CCTCTCCTGG 120
 GCCCTTCCTT AGGTCAGTAA TTGTGTGAG CCCCTTAGGC TCCTTGATC CCATCCCTAA 180
 CCCTTGCCCTG ACCATGTGAG GTTATCTGAA GCACAAGNCC CACCCTNANG NNGNNTNTCG 240
 ACCCGATTTC CTACCACCTT TTTTGGGCGG ANCCNAAGN 279

40 SEQ ID NO:4770

SEQUENCE LENGTH:203

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS05660

SEQUENCE DESCRIPTION:

50 GATCCATGTA ATCTGACGTC ATCTGTCTC GAAGTCTCTT TTTTGGCCC AGGCCTTGAA 60
 GAATACACTG TGACTTAAGA AGCCTTACCA CGCAGTAACT AAAGCTTTAG GATGACTGTN 120
 TTCGAGGAGT GCCGTGTGTT GCATGCAGCT ACCCGTAGGA AGACTTCGCG CATATCACTA 180
 ATAAACCTGA AGTCGTGATG AAA 203

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EP 0 679 716 A1

SEQ ID NO:4771

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05661

SEQUENCE DESCRIPTION:

GATCGTTGTG CTTTNTTNC TGTGTTGGTT GCCAGTTTAT AGTGCCAACA CGTGGCGCGC 60
CTTTAATGGC CCGNGTGCAC ACCNAGCACT CTCGGGTGCT CCNATCTCCT TN 112

SEQ ID NO:4772

SEQUENCE LENGTH:291

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05662

SEQUENCE DESCRIPTION:

GATCTGGGAG GTGGAAGCCA GGCCAGAGGA CTTGGGGAAA ATNAGATGGA GGAAGGAAAA 60
AGGGAGAAGC TGAGCCACAG CTTAACTCCT ACAGAGTGAA ATNAAAACGG GCTGAAAATA 120
CCACCCAGG AGAGGACCTC GNCCCANGCA AGCCAGTGAG CAGCCCTGCC AGACTACTGN 180
CAGNCTGNGA AACCAGANG CTGGGTAGTC ATGTGGGGCT TGCCTTCTTT TGCCAAAACG 240
NCTGGGGGAA NCCAAAATN GGGCCCCACC CTTNNTGTTT CTTTCCTTNG N 291

SEQ ID NO:4773

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05665

SEQUENCE DESCRIPTION:

GATCCCAGGC CTNTGGCTAG CAGCACTGAG GACAAGGAAA TGGNTGGTCC CCTTGAGTAG 60
GTCGTTACAA GGCTCAATGC CTGGTNGTCT TGGAGGGTAC TCGGAAATAA ATTGTAGCAG 120
CTTTCCTGCC AAA 133

SEQ ID NO:4774

SEQUENCE LENGTH:316

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05667

SEQUENCE DESCRIPTION:

GATCACCCAG CAGGAGTCGT GGCAGAACGG AGCATCAGCC AGACCCTGTT GTGGGCGTTG 60
TCATCAAGGG AGCTTGAATG GAGGGTCTGG TGTCAGATAC AGCCGACTCC AGCCCCAGCT 120
CATCCCCAT GATGCTGTGT GACCCACTGG GCACTCTGGT GAGGGAGCTT TCCAGACATC 180
AACAGCCAC TCTGCTTCCC TTTCTGAGTC CCCTGTCCAG CACTGCCTAG TGTGGAGGG 240
TAGACCAAGG CTGTGCATGA TTCACCCCN CTTCCATCC TGGAGCTGGC AGTGAATAA 300
AGCCCGTATT TACAAA 316

SEQ ID NO:4775

EP 0 679 716 A1

SEQUENCE LENGTH:113
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 5 CLONE:HUMGS05668
 SEQUENCE DESCRIPTION:
 GATCTCCAGA GACCCAAGTT TAGGTTCTCA TAGTGTATTT GAAGTAGTTA TACTCCTGGC 60
 TTAAGTAGTT TAGTGCCTGG GAGAATCCAT TACTGAAAAG CATTAACTT AAA 113

10
 SEQ ID NO:4776
 SEQUENCE LENGTH:157
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 15 CLONE:HUMGS05669
 SEQUENCE DESCRIPTION:
 GATCTAACAA AAATGAAACA TGAATGCAG TAGCAACCAC TAAAAAAAAA AATTCAAGGN 60
 CATCTAACTN TTTCTCTCAC TTTNGCCCTT TGTTTATCCT TCCCTGTGAT TAGATAANCA 120
 20 NAATAAAAAN CAAAATGCTG TATTTCTCTN CTTACGN 157

SEQ ID NO:4777
 SEQUENCE LENGTH:214
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS05671
 SEQUENCE DESCRIPTION:
 GATCACTTAG AGAAACAGGC CGTTAGGAAT CCATTCTCAC TGTGTTGCT CTAAACAAAA 60
 30 CAGTGGTAGG TTANTGTGTT CAGAAGTCGC TGTCTTACT ACTNTGCGG AAGTATGGAA 120
 GTCACANCTA CACAGNGANT TCTCAGCCTA CAAATTGTGN CTATACATNT CTAAGCCTTG 180
 TTTGCAGNAT AAACAGGGCA TTTNGCAAAC TAAA 214

35
 SEQ ID NO:4778
 SEQUENCE LENGTH:141
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05673
 40 SEQUENCE DESCRIPTION:
 GATCAGTTTN CAGCAGCAAG TACAAAAGGA GAAGAGGAAC ATCCGTTGAA TNAGTGTGTT 60
 TTGTACATAA CTTAGATAC TTGTNAACAT GCCTTATATT TGTCCAACAA CTGTCAGANT 120
 AAAGAACATT CTAATAATNAA A 141

45
 SEQ ID NO:4779
 SEQUENCE LENGTH:154
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 50 CLONE:HUMGS05674
 SEQUENCE DESCRIPTION:

55

EP 0 679 716 A1

GATCTTGTGA AAACACNGTN TTNTCGACTA AAAATTCCAC TNTCTTCATC TNGTTGTGAA 60
GCTAAAAAGA GGGACTGTGA AATACAATGT ATGATACCAT GGCAAAAATC TTCCTGAAT 120
TGTCTTTNGT AAAAGTATTA TTGAATTTN CAAN 154

SEQ ID NO:4780
SEQUENCE LENGTH:236
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05676

SEQUENCE DESCRIPTION:
GATCAAAATA GCTATTGCTA CAACATTTTC GAAAACAAAG TTGGGGCTGT ATTTCTTTAA 60
AAAGATAAGC CTCTAAAAAT GCTTGGCAAA AAAAATATAG TGTTAAAATA GGCCAGTGAT 120
ATTAATGAGA AAATGAAAGT ATGTATCAGG ANTAANGTGA TATTGCATAG GNGTATTGTA 180
TTTTNATGAA TTTNATGCCA GTTGTTTACA TGTACTATAT ATGTNAANTT ANNNNN 236

SEQ ID NO:4781
SEQUENCE LENGTH:168
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05679

SEQUENCE DESCRIPTION:
GATCTCAGTT GCACGTGCAA ACAAATCCAA ATTCGAACAT TCTTAGGAGG TTTTNTTAA 60
GGCATGACAG ATGATNTAAA CAAATAAATA GCATGCAACA AAANGTCTTT ATTGNAAGAA 120
GTGGAAGTTA TCTTAATGCC ACGGNTCACC ANCAATTNAA AAGTANAN 168

SEQ ID NO:4782
SEQUENCE LENGTH:79
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05680

SEQUENCE DESCRIPTION:
GATCAGTGAA CACTAACATT TTGGGGACAA CTTAGTCAAT TGGTTTTCCT TACAACAAAA 60
TAAAGTAAAA TGTAGCAAA 79

SEQ ID NO:4783
SEQUENCE LENGTH:107
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05681

SEQUENCE DESCRIPTION:
GATCACCATT CAATTTGAGT TTCCAGGGGG AAGTGCATGT ATAATGNAAT GATAATGGAC 60
TTCAATGANG GATGTCATCA ATNATGNACA TATAGATNGC CTTATAN 107

SEQ ID NO:4784
SEQUENCE LENGTH:319

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05682

SEQUENCE DESCRIPTION:

GATCTAATAA GACACGTAAT AGATTAGAAG TAGGGAAATT AATGAAAAAG CAGAATTAAG 60
 GATGACTTCT CACTGGCTTG AAATNCTAAA TGGATGACGG TGCTGTTTAG TGAGTTGGGG 120
 AAGACTGGGC GTGGTGATGG GTGTAGAAAT TGAGAAAGGA AAATCAAGAN TTTCCAGAAC 180
 TTTCAAGCA ATGTTAAATA CTTTCCTTGA TAGTGGGTCA GTCATCATTT ATAAGTGCAT 240
 TTCTAAAAAT NTTGCTTAAT TTTNTTTTGG AGCTTTGTAT AAGTGGAATT TTGTGTGTAC 300
 TGATTATNTT GCTCAATAN 319

SEQ ID NO:4785

SEQUENCE LENGTH:78

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05683

SEQUENCE DESCRIPTION:

GATCTTTCAT CTGTGATTCT TATAAGAGCT TTGTCTTCAG AAAAACTAAA AATAAAAGGC 60
 ATTGACTTAA ACAGCAAA 78

SEQ ID NO:4786

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05684

SEQUENCE DESCRIPTION:

GATCAGTTGT AAGTTCATTT CTTTACAAAT AAAAGCCTCT TCCATTTGAA A 51

SEQ ID NO:4787

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05685

SEQUENCE DESCRIPTION:

GATCTTTTCC ATCTGAGGGT ACAGGAAGTA CCAGGACCTG TTTCAATTTT TNAATCCTGC 60
 AAGCACATTC CAAGACTGGC CTGAAACTGC ATGAGCAACA TCACTCGAAA TAATTTTTTT 120
 TTTCAAANGC ACCTTAACAA CCANTTGCGA TGCTGTCTCTG TTCCTTTTTA CTCACACCCT 180
 TCTNTCCTTT CTCGTCCNA TGCTCCACCA NCTCAGTGCT NTGTGCTGTA TGCCTGTGCT 240
 CTCTGTTNTN GTATACTCAA TATANGTGNA ATAACTGGT GTTTTGTN 288

SEQ ID NO:4788

SEQUENCE LENGTH:278

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05686

SEQUENCE DESCRIPTION:

GATCATGCAT GCAGTCATGT CTCCAGTATT CTGTGAAAAG CCAGGATACG TTAGGATGTG 60
 AGTTTAGAAA CTGAGTCCAT TCGGTGCATG GAAATNCACC GCGGAGTTAC ACAANGCTCC 120
 TCACTGTAGT CCAGGCGATT GGTNGGCCGC CANCACCTG CGGGCTTCAC AGGGACGCGT 180
 GCTTGTNCTC CAAGNCCGN AACCTTACT GTGCACACAN CATCNNACAC ACCTTTGTTT 240
 TTGAAATTAA AATGTTNATT AGTTNAAAAA AGGGNGGN 278

SEQ ID NO:4789

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05687

SEQUENCE DESCRIPTION:

GATCCCGGTG TGTGCCCGAG CTTGTNCAGG CCCTGGENATG CTGCATCTCC AGGCAACTAT 60
 GCACTTTCCC GGGGAGAGAA CCAGTATGAG AAGTGGGGGC AGGGCACACA TTCATCTTTG 120
 TAGGAAGGTC TGGCCTGGGG TCGGGTGAAG GAGGGCCCAG GTCAGTNTG GGGTCCCAGT 180
 GACCTGCTTT GCCATTNTCC TGGTGCCGNT GCTGCTCCCT GTTCTGGAG CTGGATGTTN 240
 CCNAGCTGGC AGTTGAGCTG CCTGAGCCAA TNTAGTCTAG NCTTTGGTAA CTTGNGTGAA 300
 CCATAATAAN GGGGAACCAT TNTNGCCCTT GTGNAAA 337

SEQ ID NO:4790

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05688

SEQUENCE DESCRIPTION:

GATCACAAGG CTGCCTGCCT CAGTCTTGGA GTCCTGTTGG GTGAATNAGG CAGATGGGAA 60
 ANAGCCTCAC CAGCAGCTGC TTTTGGAGCA GGGGTCCAAG GAAGAGAGGG TGGCCTCGAC 120
 ATCAAACTGC CTGGATTTT CTACCACCCT GTTACATCAT AACAACTTCT GAAACACACA 180
 CCAGCCCTGA GTTCTGGGCT CATTTGAAGC CTGGAATAGC AATAAATCTT TTTAACTTGC 240
 GGACAGTTAA A 251

SEQ ID NO:4791

SEQUENCE LENGTH:316

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05689

SEQUENCE DESCRIPTION:

GATCGAAGAT GTACAATGTT AAATGTNCAT ACCAGTTAAA CTGCACTTTC CCAAGGGGNC 60
 AGCTGGNATC TACTTGAAAT GGGNATCAAG AGACCACCAA ATGTTTACAG TTTCTGTGGC 120
 CCGTTTAAAGT GTAAAATGCA GAAGTGGCTC TGTCCCCCA GAGTTAAGGN TTTGCTACAC 180
 TGGTCTCTG GAAGCATTTA NGTAGAAGAA AAGGCTTATA GTCAGNNTCA CTTTGTAGTA 240
 TCGTCTNCTG GTCCTTGNC TNTTCTGGTT CTGTNANTGC TTGTAACCAA TGANTGATGG 300
 TGTTGCCAAT CTNAGN 316

SEQ ID NO:4792

SEQUENCE LENGTH:346

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05690

SEQUENCE DESCRIPTION:

GATCAGTCCT GTCATCCAGC TGCAGCCAC CTTACACCC ATGCGGGTCG CACTNGCTGG 60
 CACATTCCAC TACTACAGCT GCGAGAGAGC CAAAAAGGCC ATGGGCTACC AGCCACTAGT 120
 GACCATGGAT GATGCTATGG AGAGGACCGT GCAGAGCTTT NGCCACCTGC GGAGGGTCAA 180
 GTGAGGGNCA CTNGNGGCTG GGCTCTCTNG ACACGTTGCT CAGCCAGTCA CTNCTTCCCC 240
 TGNTGGATTG ATGAGNTAAC ATCCTTTNGA ATGGAGTTN GCTCTTTGCC TGTGACTCCT 300
 TCTGCTAGGC AGNGGAGCGC ACCNTACTNT TTNCGTNGCG GTGNGN 346

SEQ ID NO:4793

SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05692

SEQUENCE DESCRIPTION:

GATCCCAGGG ACTCATCCTG TGACTTTGTA ACCACACTCA TTCCTTTCAA ACACAGAGGA 60
 GGAATTATTG CTTCATCTGA CTTTATTCAA ATCTAGTTAT GTATTGGCCT AAATTATTTG 120
 TGCAAAATTT GAANNNNNT TTNATTTAAA TATTAGAAAT AGCACAAAGT CATGGNGTTT 180
 TTAANAN 187

SEQ ID NO:4794

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05693

SEQUENCE DESCRIPTION:

GATCTCAAGA GCCCTGTCAG TAGAGTAGAA GTCTCTTCCA GTTTGCTTTG CCCTTCTTTC 60
 TACCCTGCTG GGGAAAGTAC AACCTGAATA CCCTTTTCTN ACCAAAGAGA AGCAAAATCT 120
 ACCAGGTCAG AATAGTGCCA CTAACGGTTG AGTTTGGACT GCTTGGAAGT GGAATCCTTT 180
 CAGCAAGACT TCTCTTTGCC TCAAATAAAA AGTGCTTTTG TGAGCAAA 228

SEQ ID NO:4795

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05694

SEQUENCE DESCRIPTION:

GATCTGCTTA AAGTTTAAAC TTTTATACCT ATCTGAGTGA ATTACAGACA ACCTATCATT 60
 NATNCTGCTN CGAGGGTCCC CAGGGCCCTT GTACAACCGA CAGNTCTTAC TTTTAAATGC 120
 AATCTCTTGT CTACATACAT NATTTTCTTA ATNGTTAGC TATTTATAGA AAGCTGCAAT 180
 AGAACTGTNT CAACTGTATA ACTATTTACN ATTCANAATA NAANTATTTN 230

SEQ ID NO:4796

SEQUENCE LENGTH:367

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05695

SEQUENCE DESCRIPTION:

GATCTCATTT GCTGAATGAT TGATTAAAGA GTAAAAATNG CCACTGCGTG CTTTTTGTAT 60
 AGTAACCGGT TTTGTTGCAC TNGTCTGTGG CTGAAACACT TACCTGCAGT GGAANGCCGA 120
 GCAAGGAGGA GGTAACATT GGAGATGTTT GTGAAAATAT TACTCTTGCT GTGAGGTTTT 180
 AGTTTGT TTTT GAATGAGAAA GGGGCTAAGT AACTTAATCC ATCTCAATGT AGTGT TTTTAA 240
 TAAAAANGGN GCCTAATATT TGAAATGGGG TCTCAGNCA TGNTCTACAA ATNTGGGGNA 300
 NCTAT TTTTN ATGCCCCGTG TAATTTNCA CCATTTTGN NATGAGTTNA TTGTAGGGGT 360
 CANNATN 367

SEQ ID NO:4797

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05696

SEQUENCE DESCRIPTION:

GATCTTTTCT CAGAGCGTCT CCATGCTATG GTTGCAATTC CGTTTTCTAT GAATNAATTT 60
 GCATTCAATA AACAACCAGA CTCAGAAA 88

SEQ ID NO:4798

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05697

SEQUENCE DESCRIPTION:

GATCACAAGT GCAGCATTCC TTAATTCCTT CTGCTATATG TCACACAGTT GTTATTTGGA 60
 GAACCAAGTA TGTATTGCAT GAAACATTA TGACTTTTTT CTCTTAGTTT AAATAAACTC 120
 CAAGGTAAGT GGACTTCTAA AGCACCTTTC TGTTTGCCCTG ATATCTACTT TAGCAATAAT 180
 TTTTTTTACA ACCCTCTGAC TCAACAAAGT AAATAAAAGT ATATTTTATC ACTATTAAA 239

SEQ ID NO:4799

SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05701

SEQUENCE DESCRIPTION:

GATCTGGCCT TATGCCCAGG CCTGGGCCCT CAGAAAGCCC GGAGGCTGTT TGATGTCCTG 60
 CACGAGCCCT TCTTGAAAGT ACCCTGATGA CCCCAGCTGN CAAGGAAACC CCCAGTGTA 120
 TANTAAATCG TCCTCCAGG CCAGGAAA 148

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SEQ ID NO:4800
SEQUENCE LENGTH:109
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05704
SEQUENCE DESCRIPTION:
GATCCTCAAC AGACACCTTC CTTGACTGAA AGTTTAAATC GTGATGCAGA GNCAGTCAGT 60
NATNTNCCGC CATCCACAGG AAATTCAGCA TCTTTATCTC TNCCACTTN 109

SEQ ID NO:4801
SEQUENCE LENGTH:147
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05707
SEQUENCE DESCRIPTION:
GATCAATTCA ATTAGATTAA AATNAAGAAC CTTGGGGCAG AGTTTGGGT TTGTAAAATN 60
AAAAGAGTTC TGGAGTTAAG CATCGTGAAC ATGCTTAACA CTAAGTGAAT GTACACTCAT 120
TTTATAATAA AACTATTAAA TTGTAAA 147

SEQ ID NO:4802
SEQUENCE LENGTH:295
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05708
SEQUENCE DESCRIPTION:
GATCTAATTT AAAATTCATT GGATTGAAAT NTATTGAATA TAATTCANCT TTTGTAAC TA 60
GGTAGACTTT NCTNATAGTT TAGTTTTAAT ATAGTTTAGG GTATTACTGG CTTTCCCCA 120
GGTGACACAC TAAGGNCCTGT TTACATGGCA ATTCCAGCAG CAACAGGNGG CTGGAATTNA 180
GACAAGGAAA GCTCATTGT TTCTTTTATG AAGGTAAAG AAGTCTACAG CTTGGGCTGG 240
CCGGTATTTA TTNATTCTGT GGCCAGAGGA TTTTAAATTT NNCNCNAATN TTNTN 295

SEQ ID NO:4803
SEQUENCE LENGTH:52
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05709
SEQUENCE DESCRIPTION:
GATCATGCCA CTGTCCTCCA GCGTGGCAAC AGAGTGAGAT TCTGTCTCCA AA 52

SEQ ID NO:4804
SEQUENCE LENGTH:374
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05710
SEQUENCE DESCRIPTION:

GATCAGATGG GGACACACAA CCCCTGGATA TGTTCATTG TCAGATTTTG TGCTGNNATT 60
 TTAAGAATGG AATGGTGGGT ATCTTTCCTT TTTTAAATG TATCTTAACT GTTGCCTGTC 120
 AGTGNNNACA AACTAGTGGC TTGACGGCAC CGTGTCCAAG TTTTAGAAC CCTTGTTAGC 180
 CAGACCGAGG TGTCTGGTC ACCGTTTCAC CATCATGCTT TGATGTTCCC CTGTCTTTCC 240
 CTCTTCTGCT CTCAAGAGCA AAGGTTAATT TAAGGACAAA GATGAAGTCA CTGTAAACTA 300
 ATCTGTCAATN GTTTTACCT NCCTTTTCTT NTTNAGNGC AGAGGTTAAA AGTAAGTATN 360
 AAGCACCCGT GAAA 374

SEQ ID NO:4805
 SEQUENCE LENGTH:123
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS05711

SEQUENCE DESCRIPTION:

GATCTGACTG TGGAAACATC CTCTCACTTG CATTCTTTTA ACTTAAACT ATTTAAGAAC 60
 TGATGTTCCG ATTATTGTAT ATATTNNCT AAAANCCAAA TAAAGCTACC TATGAAAATG 120
 AAA 123

SEQ ID NO:4806
 SEQUENCE LENGTH:299
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05714

SEQUENCE DESCRIPTION:

GATCAAACAG GAAATTGAAA GCCACTGNAA CTATGCAGCA TTTCAGTTT CATTTAAACA 60
 CTTAGTTCAG AAACCTTAAA GGATTTGANT ATTTCAAAT GCACACGTCA CTCCAGCATC 120
 TCTGTAANAT AATTGGAATG AANATACTT TTGCACTTAA ACACTGCACA TGCCGTNCTT 180
 TGCGGTNGT CTGCATCTTG AACTTTAATA CCAANTTNT TTTGCATGCT TTTGTTTCCT 240
 ACGNGATAAT GGCATGGTTT CATATGTNAC TACTTTGGAC CAGTGTTC ANNATGGNN 299

SEQ ID NO:4807
 SEQUENCE LENGTH:204
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05715

SEQUENCE DESCRIPTION:

GATCTGGACA AATGACAGTA ACTGTTTCTA ACCTTGATT TCTCATCTNT AAGATGCCAA 60
 TTGTAAGTCC TAAGGNTACT GAGGATTTT TAAAATGCGT GTACAGTTC TGACCAGTGG 120
 TTTGTGCCTA ATAATNATT ACAAATNATT ACCNAGTAAA ANCCTTGCGC CANGTGTGAN 180
 AACGTAAAGC TANTTAATCC ATNN 204

SEQ ID NO:4808
 SEQUENCE LENGTH:348
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS05716

SEQUENCE DESCRIPTION:

5 GATCAAGCGA CCTTGAGAGC AGAGNACAAA TCCCAGTGTT GCTGATATAT GGCTTCTNCT 60
 TCTCTTGTGT GTGCCTCAGC TCTGAAGNAG TTCCTGAGAA TGGGTTACAG ATGTCATGTT 120
 AGCTGGGAGT CTTCCACAT GTGGCACTTC AAAAGGCAGC ACCACTGGGC GCCTGCACTT 180
 ATTTGAAAAT GGNACTTTGG GNGAAGTATC CCTGCTAGTG GCTCTGTAAC TTAACAGATG 240
 TCANTTAGGC TTTTGTCAAT GTTGCCATCA TATNNANGCT AATGTNTACA TCCTTTTAAA 300
 10 CANNTTGNGT ATGACAATTN CCTCAGGATT TNGGGTAAGN CTTCCCAN 348

SEQ ID NO:4809

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05718

SEQUENCE DESCRIPTION:

20 GATCCTCCTG CAGACCACGC CCGTCCTGCC TGTGGCGCCG TCTCCAGGGG CTGCTTCCTC 60
 CTGGAAATTG ACGAGGGGTG TCTTGGGCAG AGCTGGCTCT GAGCGCCTCC ATCCAAGGCC 120
 AGGTTCCTCG TTAGCTCCTA TGGCCCCACC CTGGGCCCTG GGCTGGAATC AGGAATATTT 180
 TCCAAAGAGT GATAGTCTTT TGCTTTTGGC AAAACTCTAC TTAATCCAAT GGGTTTTTCC 240
 CTGTACAGTA GATTTTCCAA ATGTAATAAA CTTTANTATA NAGTAAA 287

25 SEQ ID NO:4810

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS05719

SEQUENCE DESCRIPTION:

35 GATCACCACC CCGAGCCCTC TNATCCTCTA TGGNTTCACT CCCATCATGA TTTGGAATTA 60
 TTTATTTGTG AACTTGATTA GCCGAGATTG TAAATNACAT GAGGTCAGGG ACTGGACTGG 120
 GTATGTTTTT TTCTCTGTTG CTTTCCTGGC ATGAAGTACA GTAAATACAG CACCTGATAC 180
 ATTATACATG GCCACAAATA TTTGTTGAAT GAATGANTAA AAGCACATTG GGTTCGTGACC 240
 ATTCAGTGTC CCTGNAANGA ATGCAGTTTT TCAAACCTGT GCNTCACCAT CCATTAGCGG 300
 GNGTGTGAAT CCAATTTAGG TNGGTGATGT CTAGCATTNN AN 342

40 SEQ ID NO:4811

SEQUENCE LENGTH:299

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS05720

SEQUENCE DESCRIPTION:

50 GATCATTAAC CAGAGTACCT CTACTCTTAG CAAACTCTAG TTTATGACAA GTATTTAAAA 60
 TATTTAAAAC AAGCTTATGC AGTCTTAAAG GNCGNAGGTA AATGAGATGT ANCTTAAAAA 120
 TAGTATTGGG AAAATGTTGA TAGTTAATC TAGTGGATT AGACTAGCCA AATGACATAG 180
 TAGGCTCTGA AACATCTTGT CAAGTNTATG TTTTTGTGC ATGANTTTTT GCTGGAAAGC 240
 TGTCTTTCTC TGA AAAACAC ANCGTTCTTA GACTGNNANG CCANTTATAA CNTAANN CN 299

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SEQ ID NO:4812

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05721

SEQUENCE DESCRIPTION:

GATCTTNATG CCCAACATTG GTTATGGAAG CAACAAAAA ACAAAGCACA TGCTGCCCAG 60
 TGGCTTCCGG AAGTNCCTGG TCCACAACGT CAAGGAGCTG GAAGTGCTGC TGATGTGCAA 120
 CAAATCTTAC TGTGCCGAGA TTGCTCACAA TTTNNGNTC CAAGANCCGC AAAGCCATCG 180
 TGGAAAGAGC TGCCCAACTG GCCATCAGAG TCACCAACCC CAATGCCAGG CTGCGCAGTG 240
 AAGAAAATGA GTAGGCAGCT CATGTGCACG TTTTCTGTTT AANTAANTGT AAAANCTGCC 300
 ANANAAANTN 310

SEQ ID NO:4813

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05722

SEQUENCE DESCRIPTION:

GATCCCTTTT CTTTGATGG ACCAGAAATN ATGGGTTGTA CAGGGTGCCA GATAGATTGG 60
 AAA 63

SEQ ID NO:4814

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05723

SEQUENCE DESCRIPTION:

GATCCCAGTG CTCTACTGGG GGATGAGAGA AAGGCATTTT ATAGCCTGGG CATAAGTGAA 60
 ATCAGCAGAG CTCTGGGTGG ATGTGTAGAA GGCACCTCAA AATGCATAAN CCTGTTACAA 120
 TGTTAAA 127

SEQ ID NO:4815

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05724

SEQUENCE DESCRIPTION:

GATCGAATAC AGATGACCCT GCTGTCGTGT CTTCAATTTGT AAAATNCTCC TACAAATGGA 60
 GACATTGAAG GATTATGTGT ATGGAAATNT TTACAAAATT CCTTTCTGTA CCTATTCTGT 120
 AGATGCCTGT ATAATCGGNC TGGATGTACA GCTATAAATG TGTGTGAGA GCAAGAGAGA 180
 GAGAATGGGT AGAGCCTGCT GTACCTTTTT CCTTTTAAAT TCTTCGAGTT GGTAAATGAG 240
 TAAGATATTG GAAACCTTAA TGNAAAAGCTG CTGTTTCATGN TTTGTGTGTA TAGTGAGCTG 300
 CCTGTAGTAT TTNNCTATTG TCTGNTAAAA AAAGNAAAAC CTGTAAAACN 350

SEQ ID NO:4816

SEQUENCE LENGTH:178

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05725

SEQUENCE DESCRIPTION:

GATCTTGAAC AAAGNCACTT AGTTNCCCTG GGCCTTGGTG TCTTTCGTCT ATAAAATATT 60

GTACCAGATT ATCTCTGAAA TCACTNCAAG GTTTAATATA TATANTTATC AATATTTTAA 120

AATTCAAGCA ATATTCACCTT TAGANATTAT TATAACATTC TATANTNGTN GGGGGGGN 178

SEQ ID NO:4817

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05726

SEQUENCE DESCRIPTION:

GATCGAATCG GGACATNATG GGAGCTGACA AATTTATATT CTNTTTCAAT NATTTTAAATC 60

CCACTTCACT GTGAGGGGAA GGCCTTTTCA CGGGAACCTCT CCAAATATTA TTCAAGTGCC 120

AAA 123

SEQ ID NO:4818

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05727

SEQUENCE DESCRIPTION:

GATCCCAAAT TTGTCCATAG CTGAAGTCCA CCATAAAGTG GATTTACTTT TTTTCTTTAA 60

A 61

SEQ ID NO:4819

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05729

SEQUENCE DESCRIPTION:

GATCTATAGA ATTAGATTN NTTATATCTA AAGAAATATA TATAAATACA TAAACGTAGG 60

TATGTATAGC ATGANCAGAA TACAGTGCTA TTTGACCATT GTCACAAGAC TTATTTATAA 120

AACCTCCTCA AGCTCTTGCC AATATCTTAG TTAAGNTTGC ATCTAAGGTG GCGGGNGGAT 180

GNNGATTGAG GCACTGTCAG GTCATGNTTG ATTACCTGGG TGACAAANATT ATGTTTACAC 240

CAAACCCCA TGNCACACAG TTTACCCATG TGACANNACN TNCACATGTC CN 292

SEQ ID NO:4820

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear
 CLONE:HUMGS05730
 SEQUENCE DESCRIPTION:
 5 GATCCCCCAT ATACTCTGCT ACAGCTCCTA TCATGAAAAA TAAATGTTT GTCTTTGCAA 60
 A 61

SEQ ID NO:4821
 10 SEQUENCE LENGTH:140
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05731
 SEQUENCE DESCRIPTION:
 15 GATCCGNTGG GGTGAAAGCA GCCAGTCAT CCCAGTAACT CACAGGACAC AGCCATCCAG 60
 CGGCATCTTT CTTGTGCGAA TGATACTGTA ATNACCTTCC AAAGTNAAGA GTAGCACATT 120
 AAAGTNATT TATTGTTAAA 140

20 SEQ ID NO:4822
 SEQUENCE LENGTH:309
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS05732
 SEQUENCE DESCRIPTION:
 GATCTCAATG CTGTCTGGGG ACCCTAAGAG TTTNCTNACC TGTNCAGTCT CATCTAACCT 60
 TCCAATGTCT GATGTTCTTG CCAAATTCCT GCCTGATTCT GGGTCCGTCC TGACCTCCAA 120
 AGGTCAGCTT GGTGCTTGAG GTCTCCCTGC TCTTGGTGGC AGTGGTAGCA GCAACAGCAG 180
 30 CAGCAGCAGC AGCAGCAGCA GCAGCGNCCT CTCCACTTN CTTNGCCCN TCTNCTGGGT 240
 AGAGAGGCAC TTTCAGGGAC TTTCTCCAG GNTGGNTCNT CAATATGGGA ATGNGCTNTG 300
 NAAGGNTTN 309

35 SEQ ID NO:4823
 SEQUENCE LENGTH:109
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05733
 40 SEQUENCE DESCRIPTION:
 GATCCTCCTG GCGGCAGTAG CCTTGACAAG GGCCACCTCT TCACAGGATG CAGTCTGTCT 60
 GTGCACCAAA CTCTTACCA AATAGAACAC TTGTGTCTCT CTGTGAAA 109

45 SEQ ID NO:4824
 SEQUENCE LENGTH:233
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05734
 50 SEQUENCE DESCRIPTION:
 GATCCATTG GNAGGAAATG AGAGGGCTGT NATCAGCTCT NATTAAGAAA GGAGATTCT 60

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5 TCATGCTTTC GATTCTGCAT GGGGTACAGC CAGTCACCTC ACCAGAGANT GACGGCTGGA 120
GAAGTNAACT CTGTAATACC ATAAATAAGA GTGCTTGTA TAAAGNCTG TGCACANGGA 180
TTAATATTTC CCNTCTTAAG TATCAAACGA CCTCTGGANC AAATTNTACC NTN 233

10 SEQ ID NO:4825
SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05735
SEQUENCE DESCRIPTION:
GATCTGACGT TTTCTACGTA GCTTTTGTAT TTNTTTTTTT TTAAANTTG AAGGACCACT 60
15 GATGAAGCCC TNCCANACCC CTCCCGGGTC TAANAAAACG TN 102

20 SEQ ID NO:4826
SEQUENCE LENGTH:277
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05736
SEQUENCE DESCRIPTION:
GATCAAGAAA TNTCTCTNCT CCTACATCCA GCTCCTCTAG GGGCAGCCTC CGTCATCCAT 60
25 GCCCTCCCAG GACCCCTCCAC TCACTGTGT GAGTGCGCCT CACCAGAACC AGTTAAGAGA 120
CAACTATCAA TTNNGGGGAC CCAAATTATA AGGGCCCTGN CCTGTACTGA AGNAAAGGGG 180
NGCACAAGGC CTTAATGGAC ATTGNCTTGT GAAAACGCAN ACATGAATAT GGTGGAGAG 240
CNTGGCTTAG GAGGGTGTCA TGGGGNAGNA GNGGCTN 277

30 SEQ ID NO:4827
SEQUENCE LENGTH:98
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05738
35 SEQUENCE DESCRIPTION:
GATCCCCTCT CCTGCCAAG CACTTCACAG CTGGACCCTG CTTACCCTC ACCCCCTCC 60
TGGCAATCAA TACAGCTTCA TTATCTGAGT TGCATAAA 98

40 SEQ ID NO:4828
SEQUENCE LENGTH:81
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05741
45 SEQUENCE DESCRIPTION:
GATCTGGGAT TTTNTTTTA TTTTGAAATG GGAGCTTTT TGTTTACAAG TTCATTAAAA 60
ACTAAAACT GTTCTGTAA A 81

50 SEQ ID NO:4829
SEQUENCE LENGTH:234

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05742

SEQUENCE DESCRIPTION:

GATCGATTTC TTTCCTCCAG GTAGAGTTTT CTTTGCTTAT GTTGAATTCC ATTGCCTCTT 60
 TTCTCATCAC AGAAGTGATG TTGGAATCGT TTCTTTTGTT TGTCTGATTT ATGGTTTTTT 120
 TTAAGTATAA ACAAAGTTT TTAATTAGCA TTCTGAAAGA NGGAAAGTAA AATGTACANG 180
 TTTANTAAAA NGGGGCCTTC CCCTTTAGAC TAANTTTCAG CATGTGCTTT CAAA 234

SEQ ID NO:4830

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05743

SEQUENCE DESCRIPTION:

GATCCACCCA CCTCAGCCTC CCAAAGTNCT GGGATTACAG NCATGAGCCA CCATGCTCAG 60
 NCGTGTGTGT NTGTGTGTAT TATTATATG TATATGCATA CTATATACAT NTATATATAC 120
 ACTATATAAA 130

SEQ ID NO:4831

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05747

SEQUENCE DESCRIPTION:

GATCTTTAAT CAAGCACTAT GTTAATACTG TAATATCAGA ATACTATGTT GCATTATTTA 60
 AAATGTTCAA ATTGAATAGN TTAAAANGTT TTAAATNCT AAA 103

SEQ ID NO:4832

SEQUENCE LENGTH:325

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05748

SEQUENCE DESCRIPTION:

GATCCTTGGT GCTGTGTGCC CCACTCCAGT CTGGGGACCC CACTTCANAA GGTAGGGGCC 60
 GTGTCCCGCG GTGCTGACTG AGGCCTGCTT CCCCTCCCC CTNCTGCTGT GCTGGAATTC 120
 CACAGGGACC AGGGCCACCG CAGNGGACTG TNTCAGAAGA CTTGATTTT CCGTCCCTTT 180
 TTCTCCACAC TCCACTGACA AACGTCCCCA GCGGTTTCCA CTTGTGGGCT TNAGGTGTTT 240
 TCAAGCACAA CCNACCACAA CAAGCAAGTG NATTTTAAGG GGGTTGTGCT TTTTGTGTTN 300
 GTGCTAACGT CTNACTAATT TTAAN 325

SEQ ID NO:4833

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05749

SEQUENCE DESCRIPTION:

5 GATCTGAAGA GAAGCCAGAG TATAATTTNC TACTATTTTC AATACAAAGN TGTGTTTTCA 60
TTACAATTAG NGGAATATAG GCTTCTGTGA GCTAGCCTGG AAGCAAACAT AATCATTATT 120
GTNCATTGTT TCTGTGNGAN ACTGTAATGC TGTTCCTAAA TATTGACCTA ACANTAAACT 180
CTGNNGGAATT CATGCTTGTN ACTGGNTGGA AN 212

10 SEQ ID NO:4834

SEQUENCE LENGTH:284

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05751

15 SEQUENCE DESCRIPTION:

GATCTGGCCT TATGCCAGG CCTGGGCCCT CAGAAAGTAA GAGCTCTGGG AAAGAACCCA 60
AGGAGTTGGG GGAAGGAGAG AGCCCCAAAT AAACACAACC TGAGACCCA AAGTTTAAAG 120
GTGNAAGANG NACCAAAGAC CAGNCACAGT GGCTTCCGCC TGTAATCCA NCATTTTGGG 180
20 NGGCAAGGC GGGAGGACTG CTGAGGCCA GAAGTTGNG ACCATGCCCTG GGCANCGTGG 240
NCACCTCATT TTTACTACAA ATNAAANAAN CTTGCTGNG TAAA 284

25 SEQ ID NO:4835

SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05752

SEQUENCE DESCRIPTION:

30 GATCCTACTG ATGAAATTCC CACTAAAAAG TCAAAGAAGC ATAAAAAGCA CAAAAACAAA 60

35 SEQ ID NO:4836

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05754

SEQUENCE DESCRIPTION:

40 GATCAAAAAA TTGAATGATA AATATGAATG GCTTTTCAAT TCTGTGGACT TTGTACCATT 60
TGGCTTCACC TTGTACTGCA AGATGAATTT GTAAACAAAA CAAAATTGGN CTGTCTGGAA 120
AGCTAAAGTN CTGAAATATG GAAA 144

45 SEQ ID NO:4837

SEQUENCE LENGTH:138

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05755

SEQUENCE DESCRIPTION:

50 GATCACAATG ANGGCCAAGC TTGCNCGCNT AGAGGCCAG GAGCAGGCCT TCCTGGCTCG 60
TTTCAAAGGC CAGGACCCTG GGGCCCTCA ACTGCAGTCA GAGAGCAAAG CCCTTAATAA 120

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ATATTTNACA TCCTTAAA

138

SEQ ID NO:4838

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05756

SEQUENCE DESCRIPTION:

GATCTTGTTT ACATCTTGCT CACTGCTATA TTCTCATTGC TGAGCACACA GTTGCAGCTC 60

AATAAATTTT GAATGAACTC CAAA 84

SEQ ID NO:4839

SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05757

SEQUENCE DESCRIPTION:

GATCACCTNA TGGATGTCGC AATAATACAA ACCAGTGTAC CNCTGACCTN NTCATCAAGA 60

GAGCTGGGGT GCTTTGAAGA TAATCCCTAC CCCNCTCCCC CAAATGCAGC TGAN 114

SEQ ID NO:4840

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05758

SEQUENCE DESCRIPTION:

GATCTGCACT ATNAACTTTG TGAAGAGTTT CTCCTAAAAA CTTTAAGTAA AATGTTAATG 60

GTAGCTTTGA TAACATCAAA TTCTAAGGGA GAAAAAACA ATATTAAACC GCCCAAGCAG 120

TGTGCCCTAG CAGAGGAAAA TGCAACATCT CGCAAGCGCT GCTGTAACGC CTTCAGGAGT 180

CACTGATTCA GCACTAGTTT CCGGCTGTGA AACTCATCT TTCATTTTNN CCGTGGNTNG 240

GCGCTTTTNT TANTNGTNGT CCTAATGANA TTTCTGNCAT TGTCATATAC AANCNTGAA 300

TATCATTAAT ANTTTTNNAN TNN 323

SEQ ID NO:4841

SEQUENCE LENGTH:121

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05759

SEQUENCE DESCRIPTION:

GATCAAAAAA ACGTTCTTTG AAGAGCTGGC AGTAGAAGAT AAACAGGCTG GGGAAGAAGA 60

GAAAGTNCTC AAGGNGANGG AGCAGCAGCA GCAGCAACAG CAACAGCAGC AGCAANANAN 120

N 121

SEQ ID NO:4842

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05763

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SEQUENCE DESCRIPTION:

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GATCTTCACC AGCTGCTCGT GGTGGCTCGG TGTCTGTCTC TCAGTGCTGG TCAGACAACG 60
 CTGTCAAGAG ANCGATGGCT GAGAGCAAAG CAGCTAGAGT CTTAAGAAG AACGAGGCTT 120
 CAGCAGCAAA AATGTGTGAA TGGAAATNAA CTTTAAAGAT GTAATACCTA TGAAGAGTAA 180
 TGGGCAAACT GTAGCCACAT AATTGTAAAA TTCAGATATT CATTATACC ACATTGTTTT 240
 ATAGGTAATT TCTATCACA ACCAGTGACA TTCCTGAAA TCANGCCTGG TAACACCTGA 300
 TGTTTATATG ATATTCAGTA AGGACTTTTA CCTTACTGAT TTCATGGNGN N 351

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SEQ ID NO:4843

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05765

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SEQUENCE DESCRIPTION:

GATCTGAATT TCCCATGCT TCCTGGTTTT NATATGTTTC TTGACAAATA AAGCTGATTT 60
 AAATCTCTAA A 71

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SEQ ID NO:4844

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05767

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SEQUENCE DESCRIPTION:

GATCTTTTTC TTTATCTCCC TTCCCCTTCC TAAGTCCCAT TTCTTGGTCA TAAATATTGC 60
 ATTATTCACA CTTTCAAACGT GTGTATTTTC TTACAATAAA AAATGATGAA A 111

35

SEQ ID NO:4845

SEQUENCE LENGTH:202

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05768

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SEQUENCE DESCRIPTION:

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GATCTACCA CCCACCTGGC CTCGCAGGGC GTTCATCTCC TCCTCGTGGT TCTTCTTCAG 60
 GTAGGCCAGC TCCTCCTTGA GGTCTCAAT CTGCATCTCC AGGTCGGCTC TGGCCAGGGT 120
 CAGTCATCC AGCACCCTGC TTCAGTCCCT TCCCCATGCT TCCTTGCCTG ATGACAATAA 180
 AGCTTGTTGA CTCAGCTATA AA 202

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SEQ ID NO:4846

SEQUENCE LENGTH:262

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05769

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SEQUENCE DESCRIPTION:

GATCANAACC CTAGCGCCTT TGGTCCTAAG AATGGNAGGC TGCCTTCNT CCCAATCTCC 60
 CTGCCAGGGC CCACAGCGTG GCCCTAGCCC TCCCCTCCCC GGAATGTAGA ACGGGGACCC 120
 TCGCAGGGTT GGGGCGGGG CTGATACTCC TNGGNCCCTC CCTACCCTGC CCTGTGTGTT 180
 GGCTTTNTGG CCGTCCAAGT GCCAATTGGG TTTTNGCCCA AATAAGGGCT GGTATTNTN 240
 CTNTGTNCTT GGAGGTGNGN TN 262

SEQ ID NO:4847

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05770

SEQUENCE DESCRIPTION:

GATCTGTATG TNAGGCACCC ATAACAGTAG TTTCCCTGT NAGTCGTCTT CACACATGCT 60
 GTTTTCTCTG CCTGGCTCTC TCTTCCCCTC CTTACCTGGC CAGTCCTGTT TATCATCAGG 120
 CCTTGTNTTG GATATNACGT CCTCTGGGAA GTCTTCTGGG NCCCTCTAAC CTAGGACCCT 180
 CATTACCGGN TCTCATAGNA CAGTCTACTG NTTTGTACGG AATTCTAAGT ATTCNNGTG 240
 GNACTNAATN 250

SEQ ID NO:4848

SEQUENCE LENGTH:227

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05772

SEQUENCE DESCRIPTION:

GATCATTCTT CAATTAGGAC ACAAACCAGA CAGGTTTAAT AGCGAATCTA ATTTTNAATT 60
 CTGACCATGG ATACCCATCA CTTTGGCATT CAGTGCTACA TGTGTATTN ATATAAAANT 120
 CCCATTTCTT GANGATAAAA AAATTGTNAT TCAAATTGTT ATGCACAGAA TGTTTTTGGT 180
 AATATTAATT TCCACTAAAA ANTTAANTGT NTTTTAAGGG ANNNGAN 227

SEQ ID NO:4849

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05773

SEQUENCE DESCRIPTION:

GATCTAAATA TAAGAGCAAA AACCATAAAG CATCTAAAAG TAATTGAAGG AGAAAACTTT 60
 AGTGCCTTTT GTNCTGGCCA AGATTTTTTA AAGAGGACAT AGAAGTCAGG AACTATAAAA 120
 GAAACAATTT TAAATTTTNC TTTATCAAAA TTAAGGCCA TAGACCGGGA TAANNCATTT 180
 GCAANATATA TNTCTGACAA AGTTCTTGAN TCAAGANTAT GTAANANCNG N 231

SEQ ID NO:4850

SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05774

SEQUENCE DESCRIPTION:

5 GATCAGCCTG AACAACTAA TAAGACCCTG TCTCAACAAA AAATACAAAA ATTAGCTGGG 60
 TGTGGTGGCA TATGCCTGTA GTCCCAGCTA TTCAGGAAGC TCCATTGCAA TCTAGCCCGG 120
 GTGACAAA 128

SEQ ID NO:4851

10 SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05775

SEQUENCE DESCRIPTION:

15 GATCCTTCTT TCAACCCCAA GGCCAGCTCC CATCTCATTT CCAGAAAGGC TCATACCTGG 60
 CTTGCAGGGA AGCATCTGTC TTGTCTTCC AGGTGCCAGA ATCCTCTCAG AGTCATTGAA 120
 GGGTGTTCAC CCATCCCACC CAAGGCTTGG CACACTGCCA GTNTCTTAGC AGGGTCTTGT 180
 GAGGGCTGGG GGCATCCAGG CACTCAGAAG GCAAAGGAAC CACCCTACCC ATTTGGCCTC 240
 20 TGGAGGGGGG AGAAGAAAGA AAGAAACCTC ATCCTATATT TTNCAAAGCA TGGGGGTTCT 300
 NGCATTTAGC TCTGGNGGGT GANCCANTGT GCTTNCCTGN TTAAGTGTCN 350

SEQ ID NO:4852

25 SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05776

SEQUENCE DESCRIPTION:

30 GATCTCAGTT TCCCTCACTC AGGAACTCTG TTTCTAAAGT CTTCAAGTTAA GTTTNAGTTT 60
 ATNACTGAGT GGCCTGTACT GTCAGACGTG AATGGGCCTG ACGGGCAAAT CCATCCCTCT 120
 CTCCCTCACA GTTCCAGGAG CGGCTTCCCT CGTCTCCCT TACTCCACAG GGAGCCTCCC 180
 TTGCCAGGAC CAGGGCTGCG ACGGCCATGC TGGGGCAGGT GAGTGCTCTG TTAGCTGCTC 240
 35 CCAGTGCTGT CCNAGGCTG CAGTTCTGGT CCNNGGGGTG TNAGGGTAGG GAAGGGTGCA 300
 CTTGAAGGAN GGTGGTTCAA TNTTGGGNTN CCTTAACGTT TATAGTCTNN ACAAN 355

SEQ ID NO:4853

40 SEQUENCE LENGTH:81

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05777

SEQUENCE DESCRIPTION:

45 GATCCAGGAG TTTAAGGTTA CAGTGAGCTA TGACCGCTAC TNACTCCAG CCCAGNCAAC 60
 AGAACAAGAC CCTGTTTCAA A 81

SEQ ID NO:4854

50 SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS05778

SEQUENCE DESCRIPTION:

5 GATCCTCCGT AACATTNCNA GACCAGANAG AACATCCAGA AATCCCTGGN TGGAAGCTCA 60
GGCCCCGGGG CCTCCAGCGG CACCAGCGGA GACCACGGTN AGCTCGTCGT CCGGATTGCN 120
ACGATTAAAG ACTGAN 136

SEQ ID NO:4855

10 SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05779

SEQUENCE DESCRIPTION:

15 GATCAAAATAT TTTTNATTAA CCTATATAAA GAATTTGACT GCTTATGATT CAATACATAT 60
GATTTAATAA AATAGATTGC ATTTTNAAA ATAAAGAATG ATTNAAAA 108

SEQ ID NO:4856

20 SEQUENCE LENGTH:362

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05780

SEQUENCE DESCRIPTION:

25 GATCAACCTC TGATTTTACA TCATGATGTA ATCACCCTG GAGCTTCACT GTTACTAAAT 60
NATTAATTTC TTGCCTCCAG TGTCTATCT CTGAGGCTGA GCATTATAAG AAAATNACCT 120
CTGCTCCTTT NCATTGCAGA AAATTGCCAG GGGCTTATTT CAGAACAAC TCCACTTACT 180
TNCCACTGGC TCTNAACTC TCTAACTTAT ANGTGTTGGT GAACCCNCAC CCAGGCAGTT 240
30 ATCCATGAAA GNACAAAGTG ACTAGTNCTA TGNNGTACAA AGGCCTGTAT CNTCTTGTTG 300
ATGGATTTC TGGTGCTCTT NGCTTGTTTG CAAGTTGCTT AANTTAAAGG CAGNTNTTTN 360
TN 362

SEQ ID NO:4857

35 SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05781

SEQUENCE DESCRIPTION:

40 GATCCTACCG GAAACCAACC TGTTTACTGT ACTGTTGTAA ATATCATGCC CTTTATATCC 60
TGTATATTGG CTCCTTTTAA ATAAAGTGAA ATGTCTTAGA AA 102

SEQ ID NO:4858

45 SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05782

SEQUENCE DESCRIPTION:

50 GATCTAAACT TTATGCTGCA TAAATCACTT ATCGGAAATN CACATTTTAT AGTGTGAAGC 60

55

ACTCAANN TN TAAACCTTAT TATCTAAGGT AATATATGCA CCTTTCAGAA ATTTNTTTTC 120
GAGTAAGTAA AGCATATTAG AATAATTGTG GGTGACAGA TTTTAAAAAT AGANTTTAGA 180
GTATTGGGG TTTN 195

SEQ ID NO:4859

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05783

SEQUENCE DESCRIPTION:

GATCCCTTTG AATNTTTTT TTTGTTTGTG TGTTTAAATC AAGCCTGAGG CTGGTGAACA 60
GTAGCTACAC ACCCATATTG TGTGTTCTGT GAATGCTAGC TCTCTNGAAT TTGGATATTG 120
GTTATTTTT ATAGAGTGTA AACCAAGTTT TATATTCTGC AATGCGANCA GGTACCTATC 180
TGTTTCTAAA TAAANCTGTT TACATTCAAA 210

SEQ ID NO:4860

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05784

SEQUENCE DESCRIPTION:

GATCTTTGTT TGTCTGAACA GGTATTTTTA TACATGCTTT TTGTAAACCA AAAACTTTTA 60
AATTCTTCA GTTTTCTAA CATGCTTACC ACTGGGCTAC TGTAATGNG AAAAGNATAA 120
ANTTATTAA TGTTTTAAA 139

SEQ ID NO:4861

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05785

SEQUENCE DESCRIPTION:

GATCCTGAAA GAATAATTGG TGCCAAGAC AGCAGTGGAG AATTGATGTT TCTCATGAAA 60
TGGAAGNTT CAGATGNGGC AGACTTGGTG CTGGCGAAAG AGGCAATAT GANGTGCCT 120
CAAATTGTAA TTGCTTTTAA TGNNGNGNGN 150

SEQ ID NO:4862

SEQUENCE LENGTH:155

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05787

SEQUENCE DESCRIPTION:

GATCGCAGAT TTNTNTAGAA ACACGGATGT NCATGTCCAG ATTCCCTTT NCAGGTATTA 60
AAAATAATTA AAAATAGTCC TGCCTGAGGT TGCAGTGAGC CGAGCTTGCA CTA CTGCACT 120
CCAGCCTGGG TGACAGAGTA AGACTCCATG TCAAA 155

SEQ ID NO:4863

SEQUENCE LENGTH:262

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05789

SEQUENCE DESCRIPTION:

GATCTGTACA ACTGATTTTA AAAAAATGCT AAAAAAGCC CCAAAGCATA TAATCTCTAC 60
 TCCTTACAGT CTCTAGAATT AAATGTACTC ATTTAGACAA CATATTAAAT GCATATTNA 120
 GCCACTTTAG AGAAACCTCA TAGGCACAGA GTTCCAAGN TTAATTTTAA GNATATCTTC 180
 ACGAACTTGA CCCTCCTACT CCACATTGCA NCATTTCNT CAGNCAGCAT TTNAATTCCN 240
 GTATTATGTN TNTNGCAANT NN 262

SEQ ID NO:4864

SEQUENCE LENGTH:232

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05790

SEQUENCE DESCRIPTION:

GATCAAGAAG GCCACTGGTG TGCAGGTGTN AGGCTCCTAC AGGCCCACTC TCTTCAGCAG 60
 CCACCCGGCC CTCCTCCAG CACCCGTTT AATCCCACAG AACAACGGGA ACGTTACTGA 120
 CTCTGGTGCC TTATCTCGAA GGGACCAGAA GTGCTGCGTG TTCAGGCCAT CNNTGGCTGT 180
 NTTCTGTCT CTCCTGTCTG TCCACCTACT ACTNNNTNCT NTACTTTANC NN 232

SEQ ID NO:4865

SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05792

SEQUENCE DESCRIPTION:

GATCAGAGCC GACACCAGAC GTGATTAGCA GGCGCACAA ATTCATTTG TTAAATGAAA 60
 TTGTATTTTG CCCAAA 76

SEQ ID NO:4866

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05793

SEQUENCE DESCRIPTION:

GATCTCTTGG GCCCAGGACT GTTGATGCCT TTNAGTTTG TATTCATAA ACTTTTTTTG 60
 TCTGTTGATA ATATTTTAAA 80

SEQ ID NO:4867

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05794

SEQUENCE DESCRIPTION:

5 GATCCATGCA TTATTTTCCT AGCTTCCTGC CTTGCTCCCT ATTCACTTTA CACTGTGAAA 60
GGTGGGGGGT GAGTCCCACT TGAGCGCTTC CTGTTGAATA AAGCAGGCAC TTGACCTGGC 120
TGTAGCCTAG GTCTTGAGTG AACCCCAAA 149

SEQ ID NO:4868

10 SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05795

SEQUENCE DESCRIPTION:

15 GATCATGTCT GTACATTGTG TAATGAATGA AAAGCACATA AATNTAATCT ACTTTGAACT 60
TTGTAAAAAT AATGTGTGGA GGCTATTCTT GTTCTCCAT CTCAAGTCCT GTGTGTGCAC 120
GTGTGTGCAA GTGCACATGT GTGTGTGTAA TAACACATTG TAAAGANCAG AAATNACTTT 180
AAAAAATAAA CAGAAATGGA GACCTGAAA 209

20 SEQ ID NO:4869

SEQUENCE LENGTH:335

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS05796

SEQUENCE DESCRIPTION:

30 GATCCGNCCA CCTTGACCTC TCAAAGTGCT GGGATTACAG GCATGAGCCA TCACGCCCGG 60
CCACGCTGTT GGTTCCTTAAT GACACAGCTT ANCTTTATTG TGAAGAGATT GCAGCAACAA 120
ATGAGATTTT ACCTGTATTT GTTAAAAATG CTTATCCTTG TCTAAGACTG GCAACATAAG 180
CAGTTCTTNG GCTTCTATGC CAATGGNCAC TAGGCAGTAA TACATGTGCA GTGCTANATA 240
GAAATATTG GAGTNAGGGT GTACTNAGGG AAGTTCTCAA TCTTNNCCCT NTCANTNTCT 300
TCTGTAATAG TAACCTTNA TAACATGNGG ATTCN 335

35 SEQ ID NO:4870

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS05797

SEQUENCE DESCRIPTION:

45 GATCTTTCTG CAGGAAATAG TCACTCATCC CACTCCACAT AAGGGGTTTA GTAAGAGAAG 60
TCTGTCTGTC TGATGATGGA TAGGGGGCAA ATCTTTTCC CTTTCTGTT AATAGTCATC 120
ACATTTCTAT GCCAAACAGG AACAATCCAT AACTTTAGTC TTAATGTACA CATTGCATTT 180
TGATAAAATT AATTTTGTG TTTCAAA 207

50 SEQ ID NO:4871

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS05798

SEQUENCE DESCRIPTION:

5 GATCTGTAC GGAAGGCGTC CTTTTTCCTT GTAGCTAACG TTAGGCCTGA GTAGCTCCCC 60
 TCCATCCTTG TAGACGCTNC AGTCCCTACT ACTGTGACGG CATTTCATC CCTCCCCTGC 120
 CCGGGAAGGG ACCTTGACAG GACCTCTCCC TCCAAAAA GAAAAAAGA AAAAGANAGA 180
 AAAANTAAAT GAGGAAACGT GTTNCAAA 208

10 SEQ ID NO:4872

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05799

15 SEQUENCE DESCRIPTION:

GATCAGACCA TAATGTTACA TTATTATCAA CAATAGTGAT TGATAGAGTG TTATCAGTCA 60
 TAACTAAATA AAGCTTGCAA CAAA 84

20 SEQ ID NO:4873

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05801

25 SEQUENCE DESCRIPTION:

30 GATCCTGGCC GAGGTGAGGA ACAGACAGGG GGGGTCTAGA TTCTAAGGGG GTTGGTGGAT 60
 ATTGGGCAAG GCAGGAAACC TCTGGAGACC TCATTTTCTC CATGGGGAAG ACAGCCATGC 120
 TCTTCAGGAG GAGACTCCAA GGGCAAAGNA GGGTGTCTTG GCTGTNCTTG AAGGCGAAAC 180
 CCTGCCATAT CCCAGTGCC AGTCCCCTCA GNCTGTGGTG GCCTTGATC CTGACTGGAT 240
 GTTCTCAGCC CNTTGTCTG GGCAAGAACC CAGAGCTCCC CAGTNTGGAT ACTTATTAA 300
 CCTNTTTGGA GNCNCAAATA NAAAAAANA AANNAGN 337

35 SEQ ID NO:4874

SEQUENCE LENGTH:329

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05804

40 SEQUENCE DESCRIPTION:

45 GATCCAGGGG CTGATTGGCA GCGTGGAGGA GCAGCTGGCC CAGCTTCGCT GCGAGATGGA 60
 GCAGCAGAAC CAGGAATACA AAATCCTGCT GGATGTGAAG ACGCGGCTGG AGCAGGAGAT 120
 TGCCACCTAC CGCCGGCTGC TGGAGGGAGA GGATGCCAC CTGANTCAGT ACAAGAAAGA 180
 ACCGGTGACC ACCCGTNAAG TGCCTACCAT TGTGGGAAGA GGTCCAGGAT GGNAAAGGTN 240
 AATCTTCTTC CGTGNAGCAN GGTNCAACCA GACCAACCGT TTGAGGGACT TANGTTACCN 300
 NGNGCCGGGC CAACCNAAAG AGGGNNTTN 329

50 SEQ ID NO:4875

SEQUENCE LENGTH:142

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear
 CLONE:HUMGS05807
 SEQUENCE DESCRIPTION:
 5 GATCACTTGC TTTTATGTCC ACTTTTNNAG TGGTACTTAA ATGTAAAGTA ACAACCTGAA 60
 TTGAGTCATT GCTTTCTGAA GGAATCATTG TCCTTCTCC AGTTTTGTN CCAGAATAAA 120
 AGGAAATATT TAAAAGCCA AA 142

10 SEQ ID NO:4876
 SEQUENCE LENGTH:331
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05808

15 SEQUENCE DESCRIPTION:
 GATCCTNCAG CACAGGAATT CTCAAGACCT GAGTATTTTT AATAATAGGA ATGTCCACCA 60
 TGAACCTNAT ACGTCCGTGT GTCCCAGATG CTGTCAATTAG TCTATATGGT TCTCCAAGAA 120
 ACTGAATGAA TCCATTGGAG NAGCGGTGGG GNACTAGCCA GACAAAATTT NAGANTACAT 180
 20 AANCAACGCA TTGCCACGGN AACATACAGN GGATGCCTTT TCTGTGATTG GGTGGGATTT 240
 TTTCCCTTTT TATGTGGGAT ATAGTNGTTA CTTGTGACAN GTATAATTTT GGAATAATTN 300
 CTATTAAATA TCANCTCTGA NGNTACTNGT N 331

25 SEQ ID NO:4877
 SEQUENCE LENGTH:61
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05810

30 SEQUENCE DESCRIPTION:
 GATCATGCCA TTGCACCCCA GCCTGGGCAA CAACTTAACT TTTTGAAAC TCTGTCTCAA 60
 A 61

35 SEQ ID NO:4878
 SEQUENCE LENGTH:81
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05813

40 SEQUENCE DESCRIPTION:
 GATCCTCTGG ACACGTAACC TATGTCAGNC ACTACATGAT GACTCAAGGC CAATAATAAN 60
 GCCATTTCTT ACCTGCACAA A 81

45 SEQ ID NO:4879
 SEQUENCE LENGTH:102
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05814

50 SEQUENCE DESCRIPTION:
 GATCCANAGA GGACCCCGN CCCCAGAGAC TTGGTTTTGG CTCCAGCCTT CCCCTGGCCC 60

55

CGTGACACTC AGGAGTTAAT AAATGCCTTG GAGGAAAACA AA

102

SEQ ID NO:4880

SEQUENCE LENGTH:66

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05815

SEQUENCE DESCRIPTION:

GATCAAAAGG TCTCAGATGA TGATAAAGAA AAGGGAGAGG GAGCTCTTCC AACTGGGAAA 60
TCCAAA 66

SEQ ID NO:4881

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05816

SEQUENCE DESCRIPTION:

GATCTCTAGA GTCCATTAAA AGCAAGCTAG ATTGAGAGCT CTTGGAGGGC AGGGACTGGG 60
CCTAGCTCAT GGTTCACAGC TCTTGAGGGT GACTGCACAG TGGACTCAGT CAGTCATGGC 120
TGAGTTGTGT TGGCTTNATT ATCTCTAGAA TGAGTTCTC CATTCAAATG CAAATCAGCC 180
TGGNNGGNTC ACCTGTAGTA AAGGGGGTTT CTACCTNGNG GATGAAAANA GNNNTCTTAG 240
GNACCTTCCT TGGGCCTCCA GNACTTATTT TNGATATCCC NTTATGN 287

SEQ ID NO:4882

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05817

SEQUENCE DESCRIPTION:

GATCATACCA TTGCACTCCA GCCTGAGTGA CCTGACTGAG ACTGTCTCAA AAAGNGTAAA 60
ANATAAAAAT TAAA 74

SEQ ID NO:4883

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05818

SEQUENCE DESCRIPTION:

GATCTNACTC CAGCAGAGTC TGTNCCAATN TGGGGTGAGC AGGGCCCCTG CCATGGAGCA 60
GCAGGAATTT NAGGGATGGA GCAGGTAAA GAATGGGAAA CATAAA 106

SEQ ID NO:4884

SEQUENCE LENGTH:96

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05819

SEQUENCE DESCRIPTION:

5 GATCTTAGTG GTGAAAGTAT GTGTAACCAT GTGATGGTTA AAACANGACT TACAATNCCT 60
AAATGTGTAA CTGAGAATAA AACGTACTCT NTAAA 96

SEQ ID NO:4885

SEQUENCE LENGTH:63

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05820

SEQUENCE DESCRIPTION:

15 GATCCNAAGN CTCCGGGCAG CCGTTATCCC GTGGTTTAAT AAAGCTNCCG CGCGCTCACC 60
AAA 63

SEQ ID NO:4886

SEQUENCE LENGTH:61

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05821

SEQUENCE DESCRIPTION:

25 GATCCTGCTG TGTGCTCTGT TCCATGTTCC GGTTCATCC AAATACACTT TCTGGAACAA 60
A 61

SEQ ID NO:4887

SEQUENCE LENGTH:274

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05823

SEQUENCE DESCRIPTION:

35 GATCTCCTTG TCAGGAGCAC CTAAGAACTG GCATGACTCT ACACCCTNTC TCCTTCTNCA 60
ATGACCTCGT GTCAAGATGG CAGACCTGCA GAGATGAATT TGCCTNGATA CCTGAGTCAC 120
CAGNGNGGAG GAAACTCCCA TTNGACATGC ATCACACTCC ACATATGAAA CCCTNCTTTT 180
GCTGCACTGT CACTGGGGGN TAGGGGTTAT TACTCACTGC AACTTAGCCT AGCATTAAAGT 240
TGNTTTGACT NATNCANGTT TCAGTAAANG TCGN 274

SEQ ID NO:4888

SEQUENCE LENGTH:268

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05824

SEQUENCE DESCRIPTION:

50 GATCTGTGTT GGTTCCTTAG ATTGCTAGCT TTTCCTCCAG GGGACCACAG CAGGTGAAGC 60
TCAAGAGCGC ATGGCTCTGC TAATAGTAAA TTGTTTTCAG GGCCTTGTC AGCTGAGAGC 120
TTCATGTCCA CCAGATTCTG AGAGGTGTCA GCAGCACTTT TTTTITNATT TGTNGTTNGG 180
TTCCNCCCG GTTATCGGAC CATGGGCTNA GCTCAGGCAC TTGCTGTAGG AGACTNGNNA 240

55

TTNCTGTAAA GGANNGGTNA TTTANCCN

268

SEQ ID NO:4889

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05825

SEQUENCE DESCRIPTION:

GATCAAACTT GGTCTGGGTA TTGATGAAGA TGACCCTACT GCTGATGATA CCAGTGCTGC 60
 TGTAAGTAA GAAATGCCAC CCCTTGAAGG AGATGACGAC ACATCACGCA TGAAGAAGT 120
 AGACTAATCT CTGGCTGAGG GATGACTTAC CTGTTCAGTA CTCTACAATT CCTCTGATA 180
 TATATTTTCA AGGNTGTTTT TCITTATTTT TGTNAATATT AAAAAGTCTG TATGGCATGA 240
 CAACTACTTT AAGGGGAAGA TAAGATTTTC TGTCTACTAA AGTGATGCTG TGGTACCTTA 300
 GGCACTNAAG CAGNGCTAGT ATN 323

SEQ ID NO:4890

SEQUENCE LENGTH:66

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05826

SEQUENCE DESCRIPTION:

GATCTAAGAG TATGGCTAAA CATCTATATA TGCAATCTAT TAAAAGAACT TAATTCGGCT 60
 ATTAAA 66

SEQ ID NO:4891

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05827

SEQUENCE DESCRIPTION:

GATCTCTGGA GCTCAAGAGG TTGAGGCTGC AGTGAGCCGA TGTGCCAGTA CACTGCAGCN 60
 TNGGTGACAG AGCAAGACCC TGTCTCAAA 89

SEQ ID NO:4892

SEQUENCE LENGTH:344

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05829

SEQUENCE DESCRIPTION:

GATCGCCACT TACCGCAAGC TGCTGGAGGG CGAGGAATGC AGACTCAGTG GAGAAGGAGT 60
 TGGACCAGTC AACATCTCTN TTGTCACAAG CAGTGTTTCC TCTGGATATG GCAGTGGCAG 120
 TGGCTATGGC GGTGGCCTCG GTGGAGGTCT TGGCGNCGGC CTCGGTGGAG GNCTTGCCGG 180
 AGGTAGCAGT GGAAGCTACT ACTCCAGCAG CAGTGGGGGT NTCGGCCTAG TNNNNNGGGC 240
 TCAGTGTGGG GTGCTCTTGG CTTCAAGTGA AGCAGTAGCC NGAGGGCTGG GGGTGGNCTT 300
 NTGGCANTGG CGGNTNTAGC AGNTCCAGCG TCAAATTTTN CTCN 344

SEQ ID NO:4893

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05830

SEQUENCE DESCRIPTION:

GATCAGGNAG CCTCCTGATG CCAGAACACC TNAGGCAGAG CCCTACTCAG CTGTACCTGT 60
CTGCCTGGAC TGTCCCTGT CCCC GCATCT CCCCTGGGAC CANCTGGAGG GCCACATGCA 120
CACACAGCCT AGCTGCCCC AGGGAGCTCT GCTGCCCTTG NTGGCCCTGC CCTTCCCACA 180
GGTGAGCAGG GCTCCTGTCC ACCAGNACAC TNAGTCTNT TCCCTGCAGT GTTTTCATTT 240
TATNGGGGNC AAACATTTTG CCTGTTTCT GGTTCAAAC ATGATAGTTG ATATGAGACT 300
GAAANCCCTG GGTGTGGAG GGGAAATTGG GNTNAGAGGG GN 342

SEQ ID NO:4894

SEQUENCE LENGTH:138

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05831

SEQUENCE DESCRIPTION:

GATCCTGGAC TTNCCCTCA GCAAAGATGC CTCNTGGTG GTGACCACGT CAGGAGACCA 60
CAAAGCGAAA NTNTTNTTT TCCAAAGGCC TGACCGTTAA TGGCTGCAGC CCCTGCCTGT 120
TTGTTNGGTG TTGAGGGN 138

SEQ ID NO:4895

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05832

SEQUENCE DESCRIPTION:

GATCCACCCG CCTCAGCCTC CCAAAGTGCT GGGATTACAG GTGGGAGCCA CAACACCCGG 60
CCATGAATTA ACTCCGTAA AAAATAAACG TATACATTCT GTGAGCAAA 109

SEQ ID NO:4896

SEQUENCE LENGTH:274

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05833

SEQUENCE DESCRIPTION:

GATCGGTTTC GCCATCATGA CGCAGTGTCT CCCAGTGGCC CTGTTCTCCC TGGTGGGCTT 60
CACCCAGATG ACCATNTGGG CCAAGGGCAA GCACCGCAGC TACCTGAAGG AGTTCCGGGA 120
CTACCCGCCC CTGCGCATGC CCATNATNCC CTTCTGCTC TGAGCGCTCA CCCCTGCTGA 180
GGCTCAGCCC CTNAACCCGG TGGCATTCTG GGGGAGGAGT GGGGCCACACA GNTCTCCAGC 240
ACCCGGAATA AAGCCGNCT GCCCAGTCG GAAA 274

SEQ ID NO:4897

SEQUENCE LENGTH:343

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05834

SEQUENCE DESCRIPTION:

GATCTTGCTG GATGTGAAGA CGCGGCTGGA GCAGGAGATT GCCACCTACC GCCGCCTGCT 60
 GGAGGGCGAG GATGCCCACC TTTCCTCCCA GCAAGCATCT GGCCAATCCT ATTCTTCCCG 120
 CGAGGTCTTC ACCTCCTCCT CGTCCTCTTC GAGCCGTCAG ACCCGGCCCA TCCTCAAGGA 180
 GCAGAGCTCA TCCAGCTTNA GCCAGGGCCA GAGCTCCTAG AACTGAGCTG CCTCTACCAN 240
 AGCCTNCTGC CCACCAGCTG GCCTCACCTC CTGAAGGNCC GGGTCAGGAC CCTGCTCTNC 300
 TGGNGNAGTT TCCCAGGTAT NTTNNTGGT TCCTGTTGGT GAN 343

SEQ ID NO:4898

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05835

SEQUENCE DESCRIPTION:

GATCAGNAGC CCCCAACACA GGCAAGTCCA CCCATAATA ACCCTGCCAG TGCCAGGGTG 60
 GGCTGGGGAC TCTGGCAGAG TGATGCCGGG CGCCAGGACA GCAGCACTCC CGCTGCACAC 120
 AGACGGCCTA GGGGTGGCGC TCAGACCCCA CCNTACGCTC ATCTCTGGAN GGGGCAGCCC 180
 TGAGTGGTCA CTGGTCAGGG CAGTGGCCAA GCCTGCTGTG TCCTTCCTNC ACAAGGTCCC 240
 CCCACCGTTC AGTGTACGG GGTGACGTGT GTTCTTTTGA GTCCTTGTAT GANTAAAAGN 300
 CTGGAACCTN ANAAAAAGTG NGNNGNGGTN TNTGNTAN 338

SEQ ID NO:4899

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05836

SEQUENCE DESCRIPTION:

GATCAGCCCC TGACTTTNTT AAAAGATATC AGAAGTGTCT TGGAGCCAAC TAGAGGCAGG 60
 GTCATCCTTG CCCTTNTCCT CCCCTTTCAT CCCTATGTGG AAAACGTAGG TGGCAAGTGG 120
 GAGAAACCAT CAGAAATTTT GGAAATCAAA GGACAGAACT GGGAAGANCA AGTGAATAGT 180
 CTGCCTGANG TTTTCAGAAA ANCTGGTTTT NTTATCGAAG CTTTCACCAG ACTACCATAC 240
 CTGTNTGAAG GCGACATGTN TAANGNCTAC TNCGTTCTGG NTGACGCTNT CTTTGTCTC 300
 AANCCAGTAT AAACACGTGG NGGTCGAAGT CTTCAGAGTC CGTACCNTNC TGGATN 356

SEQ ID NO:4900

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05837

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCCCCCAG AAAAGAAAGC TACAGAAGAA ACTGGGGCTC CTCCAGGGTG GCAGCAACAA 60
TAAATAGACA CGCACGGCAG CCACAGCTTG GGTGTGTGTT CATCCTTGAA A 111

5 SEQ ID NO:4901
SEQUENCE LENGTH:293
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05838
SEQUENCE DESCRIPTION:
GATCTTAATG GGTTCGATGG TAGGGAATAC GGAAAGGATA CACTGCTAAT ATTGTGTCTA 60
ACAATAAAGC AAACAACCTCG ATGCTGTAAG AAGACAAGCT GTTTGAGCTT TCAAACACAC 120
AGGGGCACAG CACAATTCAG AAATACCCAG GAGGATTCCT GCAGGCTTAA CAGTTGGCAT 180
15 CGTACTGAAA TGAACCGTGT ATTAACANGA AANTGTCAAA CTTTGGGGA AACAAATTTT 240
CTGTTACTTC CCACCCNACT AAAAGGGAAG ATAAACCAT CATCACCAGN NNN 293

SEQ ID NO:4902
20 SEQUENCE LENGTH:99
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05839
SEQUENCE DESCRIPTION:
25 GATCTACATA AGGAAAGGAA GAATATTAAA GAAGAAATAA ATGAAGACGA GATAAAATCT 60
TTTTTCTTAA TTATCAAATA AAAGTTTGTT AAAAGTAAA 99

SEQ ID NO:4903
30 SEQUENCE LENGTH:290
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05840
SEQUENCE DESCRIPTION:
35 GATCAGGCAG TTCCTGGACT GTTCCACCAC TCAGAGTGAC CTGTCCCTGT GTGAGGGCTT 60
CAGCGAGGCC CTGAAGCAGT GCAAGTACTA CCATGGTCTG AGCTCCCTGC CCTGAAGAGG 120
TCGGTGCAGA CTCGGGGGCC AGTCCTGCAC NCACNTCTAC CCCTCGCCGA CAGCCAGACC 180
ACAACACCAG ATTGTACCCA GATAGCTGGG ATTGGAAGTN AGGAGGTTTC TCACCCACA 240
40 GATAACCCAA GACACAAATG TGCAATTTAA AGTTTATTTT AGACCACAAA 290

SEQ ID NO:4904
SEQUENCE LENGTH:68
45 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05841
SEQUENCE DESCRIPTION:
GATCTGCCCC CCTTGGCCTC CCAAAGTGCT GNGATTNCAG GCATGAGGCG CTGCATCAGT 60
50 TCTGCAAA 68

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SEQ ID NO:4905

SEQUENCE LENGTH:223

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05842

SEQUENCE DESCRIPTION:

GATCTGCAAG CNGGAGCCCT CCTACCCGCA GCTTNAGCAC AGNATCATCC AGCCCTGGGG 60
 AGGCGCACCC TTAAGCAATA CAGACTGGGC TGAGGCTGAC AGGCAGAAGA CTAACAGAGC 120
 GCANTCTGCA CACGCAGGTT CTGGGGCGAC CTCTGGCCCT GGNCATCTCT GNACTAACTN 180
 ATCTGAATTA TGGAAGGTGG CAGTNTTGGT CANTAGTTT NNN 223

SEQ ID NO:4906

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05843

SEQUENCE DESCRIPTION:

GATCCGTCCG CTTCGGCCTC CCAAAGTGCT GGGATTACAG TCGTGAGCAC CGCGCCCGGN 60
 CTGNGGTCAA TTTTCTATGT CAAGTGAGTG ACATTATTTT TACAAGTATT TTCTTCTTTT 120
 TAAAATTATA CCAGCAAATA CAGTTAATGC AGAAACCTAA GTAATTTGAG TGTAGCTATT 180
 CACAATCTAT GTGAAGNNNN CAAAATAGAA TGACCAGTTT TATTATAAAT TAAGGGGCTT 240
 AATTTTCTAA AAAAGNANAN AANTGAGCCN TATCTCTGTG TTTTATAATT ATN 293

SEQ ID NO:4907

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05844

SEQUENCE DESCRIPTION:

GATCACTTGA GGCCAAGTAT TAAAACCAG CCTGGGAAAT ACAGTGAGAC CTNTNTCTA 60
 CCAAA 65

SEQ ID NO:4908

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05845

SEQUENCE DESCRIPTION:

GATCCTGAAG GCCTTCGAGT ATTTTACTAT TTGGTACAAG ACTTGAAATG TTTNGTNTTC 60
 AGTCTTATTG GATTACACTT CAAGATTAAN CCAATTTAAA TTGTATGTNT TCAGGCTGTT 120
 TGTATATTN ATTAAGGGAT GGGAGGGGTT ATTTGTCATT TACAGTATTG GGGTTTNNAT 180
 GAATGTGAAG CAAACAANAN ANATTTGTNT GTAAACTGTT TTNTN 225

SEQ ID NO:4909

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05846

SEQUENCE DESCRIPTION:

GATCAGGTG GGGGGCAGCC CCCAGTCCCT TTCTGTCCA GTCAGTTTT CAAAAGACA 60
CTGACATGTA ATTCTTCTCT ATTGTAAGGT TTCCATTAG TTGCTTCCG ATGATTAAAT 120
CTAAGTCATT TGAAT 135

SEQ ID NO:4910

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05847

SEQUENCE DESCRIPTION:

GATCCAGTAT TTGATGAAAC TCATGAAAGT GGGTGGAGCC CATCTNGCCC CTCCTCTTTT 60
CTAGGACGCA CTATATGTGA CTGTGACTTT CAAGGACATT TGTTGCCAT TTGCTGATTT 120
TTTTGGGAAG TNAATTNCTA ACTNCTTTCA CTGATAAATG NAGAAAAGTA TTGCACCNGT 180
GAAATGCACC AAATGAATNG NGTTTTGTAA TTAATAAAN NTNTN 225

SEQ ID NO:4911

SEQUENCE LENGTH:281

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05848

SEQUENCE DESCRIPTION:

GATCCCCTAA GGTCTGGCC CAGGNCTGCC CAAAGAGAAG CCCAGGATGG TCGGCTGCCT 60
GGGGGCATTG TCACCACGTN GCCATGACGG CTGGTCCNA CAGGNCCAGC TGGGAGGACT 120
GGTTGTGCTG CTGGAGAAG GCTGGAGAAG GCAATGGCAT GCTGCCGCTT TGCCAGTCCC 180
TAGAAGTCGC GGTGCAGGTG ATGTGTNGNG AGCCGTNCCT NCANTGGGCA GGCCNGGGAG 240
TNTACTTGTG TGCAGCTGAC CCAAGGGCAG CCACATNTNN N 281

SEQ ID NO:4912

SEQUENCE LENGTH:179

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05849

SEQUENCE DESCRIPTION:

GATCAAAACC CAGCAGAGTG CAAGCAGCAG TGAAGCAGGA TGTATGTGGC CTTGAGGATA 60
ACCTGCACTG GTCTACCTTC TGCTTCCCTG GAAAGGATGG ANTTTACATC ATTTGGGCAA 120
GGCCTATTTT CAAGGTTTNT TTGGTNTGNT TGGNTNGCTT GTTTTGGNT TNTGGCAGN 179

SEQ ID NO:4913

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05850

SEQUENCE DESCRIPTION:

5 GATCGAGGGC TGGGNACCCC GGTGTNAGCA GGATGGGGCC CTGCCCTCCC GTGGNAGTTG 60
 TGGACTCGAG CCCAGGGGCT GCCCGTAACA GCGGTGTCCC AGGTCCTGC CATCCNATTT 120
 TACCTGGAAT GTCTTCTCTG GAGTTTGGAA TTGCTTGAGG AACCCCTGCGT GTGCTTGAG 180
 AGGCCAGAGG GCTTGCTGAG AACCCCATGG ACAGTGGAGA GCGGGATTCTG AACCAAGGGC 240
 TGGACTCCCA CACCTNTGGC CTGCGTCGCC CAGTCTTTG TGGCTCTGAA GAATTGGNCG 300
 10 CTGTGAAAA GTN 313

SEQ ID NO:4914

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05851

SEQUENCE DESCRIPTION:

20 GATCTATGT GTTACAAAAT TGGAGAAAGT ATTTAATAAA ACCTGTTAAT TTTTATACTG 60
 ACAATAAAAA TGTTTCTACA GATATTAATG TTAACAAGAC AAAATAAATG TCACGCAACT 120
 TAAA 124

SEQ ID NO:4915

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS05852

SEQUENCE DESCRIPTION:

30 GATCCCTGA ATGCCITTGG AGGCCAGTAG AGCACACAGG GTATCCACAT GTTACCCTGC 60
 AGCTACATTG TTGAGTTAGT GATGATATTG TATATGCTCA TGGTCTNAAC TGGATTACAA 120
 AAAGCAAATA CTAGAACAGC TAGCTCATCT TTNACCCAAT GTACTTAGTA TTTTCNTGCA 180
 CTGGTTTAAT CATGNTTAAT ACTACAAANC AAAANTAANT ATTTACAGT GGTGGNTTG 240
 35 TTTTGTTTT AANCCACAGT TNGANTTAGT TAGCCTTGCT GGGGCCATAA TATGCTTCAG 300
 GGTGTGTAAN TGN 313

SEQ ID NO:4916

SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS05854

SEQUENCE DESCRIPTION:

45 GATCTGGGGA CTACCAGAGA CTCTGGGAAA TGGACAAGGT GGGGGGCCCC ACTCTTTCTC 60
 TCCTGCAGTC CCGTAGCTGG GGCCTCCTTC CTTCTCAGGG TCTCCCAGC CCAGTCCCCT 120
 TGCTCCCATC CCACTCGGTG CTGTTGGGTA GGGGCCCTGC CAGGAAGTGA CCAGCTNAGC 180
 GAGGAGCCAT AATGTGCATA TGTGCACAAG CAGGGTTTGG GGAGGGGGNT GTGAGGGGNT 240
 50 GTGCCCAGGT GTTGCCCCCT ATCTCCTGGG GAGGGTGAGG NAGGGCAGGG ACAGTNTCCA 300
 GGGGTNAATT TN 312

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SEQ ID NO:4917
SEQUENCE LENGTH:55
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05856
SEQUENCE DESCRIPTION:
GATCTAAATA TTCTGGTTG GATTAGGCAA TTAAAATTT TTTGGCAACA GGAAA 55

SEQ ID NO:4918
SEQUENCE LENGTH:370
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05857
SEQUENCE DESCRIPTION:
GATCCAAGGA NCGTTTGGNT TTTCTAGCT ACATCTGGTA CCTTGGCTGG CATTATGGGA 60
ATNAGGTTCT ACCACTCTGG AAAATTCATG CCTGCAGGT TAATTGCAGG TGCCAGTTTG 120
CTGATGGTCG CCAAAGTTGG AGTTAGTATG TTCAACAGAC CCCATTAGCA GAAGTCATGT 180
TCCAGCTTAG ACTGATGAAG AATTAAAAAT CTGCATCTTC CACTATTTTC AATATATTAN 240
GAGAAATAAG TGCAGCATTT TTNCATCTGN CATTTTACCT AAAAAAAG ACACCAAANC 300
TTGGCAGAGA GGTGGGAAAA TCAGTCATGT TTTACCAANC CTANCNGAGG TTGGCGTGTT 360
TTGTTACCTN 370

SEQ ID NO:4919
SEQUENCE LENGTH:168
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05858
SEQUENCE DESCRIPTION:
GATCTTGAAA GGAAGTATGC TGTCTCTAT CAGCCTCTAT TTGATAAGCG ATTTGAAATT 60
ATTAATGCAA TTTATGAACC TACGGAAGAA GAATGTGAAT GGAAACCAGA TGAAGAAGAT 120
GAGATTTTCG AGGAATTGAA AGAAAAGGCC AAGATTGAAG ATGAGAAA 168

SEQ ID NO:4920
SEQUENCE LENGTH:128
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05859
SEQUENCE DESCRIPTION:
GATCATGGGA GGGAGCTGAG GGGTTAATAT ATATACATAC ATACACATAT ATATATTTNN 60
GTAAATAAAC AGGAACTGAT TTNCTGCCTC CATCCCACCC ATGAGGGCTG CAGGNACTAC 120
AAGAGAAA 128

SEQ ID NO:4921
SEQUENCE LENGTH:166
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05860

SEQUENCE DESCRIPTION:

5 GATCGGGTCC CCAGAGCCAC CATCTCCTGA GCCTCCCACC CCGCTGCCTG GGCCCTGTGG 60
 TTGCTGGGCC TCCCACCTCA AGGAGGGGAA GGTGTACAG CCCGAACCCG TGGAGCAATG 120
 CCCTGTNTGG NCTCCAAAAC CAAAATAAAA CTGGTGTAC TTAAA 166

10 SEQ ID NO:4922 .

SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05862

15 SEQUENCE DESCRIPTION:

GATCTTTAAA CTGCTTTATA CACTGTCACG TGGCTTCATC AGNTGTGTGC ATTCAGGAT 60
 GGTTTTAAA GNAACCTCAG AAAGNTATTT CCTAAA 97

20 SEQ ID NO:4923

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05863

25 SEQUENCE DESCRIPTION:

GATCAGAGAA AAATTAAGAA TCCTAGTCTG GTTGATAAAC ATTTTATGCT 60
 TGCAATTTAAA CTGAAATGT ATGAGCAGAA TGAGACAATC AGTTAAATCA GAAATGAGAA 120
 GTATTATAAT GTAAAGGCCT TGTTTGCTG TAGCAATANN ATGACCAAGT GCAATGACTT 180
 30 GATTTAATAA AATCATATNT TAAAGTTAA A 211

SEQ ID NO:4924

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS05864

SEQUENCE DESCRIPTION:

40 GATCAACGCC TCACTGAAAC ATGGCTGTGT TTGCAGCCTG CTCTAGTGGG ACAGCCCAGA 60
 GCCTGGCTGC CCATCATNTG GCCCCACCCA ATCAAGGGAA GAAGGAGGAA TGCTGGACTG 120
 GAGGCCCTG GAGCCAGATG GCAAGAGGGT GACAGCTTGC TTTCCTGTGT GTACTCTGTC 180
 CAGTTCCTTT AGAAAAAATG GATGCCCAGA GGAATCCCAA CCCTTGGCTT GGGGTCAANG 240
 AAACAGCCAG CAAGGNGTTA GGGGNCCTAG GGCCTTGGG CTGTTTGTG CCCATTGAA 300
 45 NGGCGGNCCT NTGGGCCCTG GGCCCTTNG GTTTGGTN 338

SEQ ID NO:4925

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

50 TOPOLOGY:linear

CLONE:HUMGS05865

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SEQUENCE DESCRIPTION:

GATCCTGTCT TCTTTCATGT TTACTACGAG GCATGACATT CATGGCAAAA CAGGGATGCC 60
 GTTTCGAAGA GCAGCTATAA AACAATCTGT TTTCTAAAG ACAGCCACTC TGAGAAGGNG 120
 ATGANGGAAC ACGGCAGGGT TCATCANTTC ATAGACTGTT TCCAAAAATA ATTTTAAAC 180
 TTTTCCACTA GGCATCTGTG TCTTTAACCA CTGCACANTG GCNTTGCCTG TTAAATANAA 240
 GGTNNTCANN ACGTGGAAA 259

SEQ ID NO:4926

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05866

SEQUENCE DESCRIPTION:

GATCCACCCA CCTCGGCCTC CCAAAGTTTT GGGATTACAG GCACGAGCCA CAGTGCCAGC 60
 TGAAAACGTT TCCTAAACAG AAGTGCGCAG AGCATGATGG AGCCAGCCT GGGCTTGACA 120
 TTTGGAGAGA ACTACAGAGA AGTATCCAGA CTGTTGTTAC TAATAAATAA ATACATAAGC 180
 TCCGCTGNAC GGAAA 195

SEQ ID NO:4927

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05867

SEQUENCE DESCRIPTION:

GATCCAACAA TAAATATTA ATTTATAAAA AAGAAATTTT AAAAAAGTAAC AAGAAA 56

SEQ ID NO:4928

SEQUENCE LENGTH:82

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05868

SEQUENCE DESCRIPTION:

GATCATCCTC CAAGCAGTCC TGTTCATTCA TGTCTGCCTC AAATTGCTGG TGAATACATA 60
 AAATAGTTAC TTGCTAATCA AA 82

SEQ ID NO:4929

SEQUENCE LENGTH:286

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05869

SEQUENCE DESCRIPTION:

GATCCACCCG CCTCAGCCTC CCAAAGTGCT GGGATTACAG GCAAAAGCCA ACACACCCGG 60
 CCTGGATATG AATTTATAAT ACCCTACAGT GCAGCACAAG AAGATGCACT CAAAGCACTG 120
 ATGTGAGGAA GTACTTGCCC CGTAGCAGCT ATTCCTCTA CCAGTGTAAG CAACTCTAA 180
 GGCTAGGGCG GGGCAGCACA GGCACANGNN TATACTAGCC AGGGGTTTAA TATAANTACA 240

ACCAGCATAG NAAGNCCCAA ANCTNTACAG NNNCCAANAC CNGGNN

286

SEQ ID NO:4930

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05870

SEQUENCE DESCRIPTION:

GATCTGTGCC CCATGCCTGT CCAGCCTGGG CAGCCAGGCT GCCAAGGCCA GAGTGGCCTG 60
 GCCAGGGGCT CTTCAGGCCT CCCTCTCTCT TCTGCTCCAC CCTTGGCCTG TTTCATCCCC 120
 AGGGGTCCCA GCCACCCCGG GCTCTCTGCT GTACATATT GAGACTAGTT TTTATTCCTT 180
 GTGAAGATGA TATACTATTN TGNTNAAGCG TGTCTGTANT TANTGTGTGA GGANCTGCTG 240
 GGNITTCANT CGNGTGNACG GTGGGAGAGN TTGGGTGCCC GNGAGAATNG ACGGGCTNAT 300
 GGNITTCCTT N 311

SEQ ID NO:4931

SEQUENCE LENGTH:305

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05871

SEQUENCE DESCRIPTION:

GATCAAAAA CTACCTATCT GGTACTATGC TTTNATCTG GATGATGAAA TAATCTGTAC 60
 AACAAACCCT GGTGACATGC AATTACCTA TATAGCAAGC CTACACATGT GCCCCTGAAC 120
 CTAACAAAA AGTTAAAGA AAAACGTTTG GNTTATTTT CCTCTTTNGA ACAANGNCAT 180
 TGGTTTGCCC AAGGNTACA AATAANCCAA CGGGAAAAAN GANAGGTTCC AGTTTTGTNT 240
 GANAATTCTG ATTAAGCCTC TGGGCCCTAC AGCCTGGGGA ACCTGGNGAN TCCTACACCC 300
 GGGAN 305

SEQ ID NO:4932

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05872

SEQUENCE DESCRIPTION:

GATCCAGAGA CACACAAGAG CACCAAAGCA GCTCATCCCA CTGATGACAC CACGACGCTC 60
 TCTGAGAGAC CATCCCAAG CACAGACGTC CAGACAGACC CCCAGACCCT CAAGCCATCT 120
 GGTTCATG AGGATGACCC CTTCTNTAT GATGANCACA CCCTNCGNAA ACGGGGTCTG 180
 TTGGTCGNAG NTGTGCTNTT CATCACAGGG ATNATNATTN CTNACCAGTT GGN 233

SEQ ID NO:4933

SEQUENCE LENGTH:276

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05874

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

5 GATCTACTAA AACACTAAGT TTCATACTAA ACCGTTTCAT GTATCTTTAT CATATTCTGT 60
 AAAGITTACA CTTTGATGTA CCTGTATTTT ATTGAAATAC TGTCCAGCTT CAAATGGAAC 120
 AATATTGTAT GTAGAAATTC CAATTACTGG TTTGTCAGTN GGATTCTTAG CTCTGTAAAA 180
 CGCCAGTGCA GTCTCTCCTG GCACCACCTG TTTTAAAGAG TATATATATN ATCAGTNCTT 240
 TGNNTCTCAC AAAGNGCCTC NNTTCCCTG CTAAGN 276

10 SEQ ID NO:4934
 SEQUENCE LENGTH:89
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05875
 SEQUENCE DESCRIPTION:
 15 GATCTGGTGG GCTGGGTCCC CCTCTCGACC NCAGACGCCC CTAAGTCGCC CCTTCTCATT 60
 TTATACAATA AACATTCTCC ACCTACAAA 89

20 SEQ ID NO:4935
 SEQUENCE LENGTH:313
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05876
 SEQUENCE DESCRIPTION:
 25 GATCAGGAGT TCTAGGCTGT AGTGTGCTAT GAGCACATCT ATGAATAGGC ACTGCGTTCC 60
 AGCCTGGGCA ACATAGTGAG GCGCCATCTC TTAAAAGGGC ACACGTGTAT AGGACAGCTC 120
 CATTATAATC TTATGGGACC ACTGTAATAT GTGTAATCCA TTGTTGACTG GAACATCCTT 180
 ATGCAGCACA TGACTGTGTA CATAACTTAA AATTATCAT TTAAACCATT TTAAAGTGTA 240
 30 CAATTCGGTG GTATAAAGTA CATTTACATT ATTGTGTAAC TATCACCTCT ATCCATCTCC 300
 CTAACTTTTT CNN 313

35 SEQ ID NO:4936
 SEQUENCE LENGTH:224
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05877
 SEQUENCE DESCRIPTION:
 40 GATCCGGGTT CAGAGTGACG TTTTCTCTCA CAAGCAGAAG GTAACAAATT TCATGCTCTC 60
 CCTAAATTCT GTCTGATTTT GCCTNGTGGT GATAGATTGT CANGAACACA ATGTCCTCTG 120
 GAGAAATCTA TTGACAGAAA TTGGTGCAGT GTTANCAACG CTAATGTAAA ACACAGANTT 180
 TACAGAAAAN TAGAGAAAAT AAACACATTT GTNNGCCTCA GAAA 224

45 SEQ ID NO:4937
 SEQUENCE LENGTH:314
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 50 CLONE:HUMGS05879
 SEQUENCE DESCRIPTION:

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GATCCTCTCT CCCAGGGAAT CCGACACAGG AGGAACCCCT TCTNTGGTTG ANCTGGGCCA 60
 GGCCTAAGAG TAGCAGGAAC TCTAAGACCA CAGAGTTTTT TATAAATGTA TAAATGTATC 120
 AAGCCAAATN TGCAGATGCT AACTGGACAT TCTGGGGAAC TGGGCACCAG GNGTGCCTTC 180
 ATACACTGTA CCCAGCTCT NTTCTAAAAG AGAAGTNGGT GGGCACACTT GAACTGTTTG 240
 GTGGNCCNAA CCACAGGANG CTGCAATTNT NTGGNTTAGG GTGATACTTT TGGCCCTNCN 300
 TGTGGCCCT NTN 314

SEQ ID NO:4938
 SEQUENCE LENGTH:143
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05880

SEQUENCE DESCRIPTION:
 GATCTGAAAG TATAAACTG CTAGAAGAAA ACATGGATAT TTGATTGGAC AATGATATTT 60
 GGATATGACA CCAAAGCCT AGGCAACTAA TGCAAAAATA GACAGGGAGA GTACATCAAT 120
 CTTAAAAACC TTATGATGGC AAA 143

SEQ ID NO:4939
 SEQUENCE LENGTH:389
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05882

SEQUENCE DESCRIPTION:
 GATCTGAAAT ACCATCTCTA CCAGAGACTC TGGGAAAAAT AATGGATTCC AAGTGTTAAA 60
 CGGAATTAAG TTTGGCCTAA AACTGCCTCT GTACATAGTG ACTTATAACC TCACTTAATG 120
 TATAAGCAA CTGGGACCTG ACTTGAGAGT ACACTTCTGT AACAAGCAGC AGAGTCTCAC 180
 CAATCACATG CTGAAGGCTC CAAAACATG NCTATGTGAG GTGGAGGCTG ACCTGCAGTC 240
 AGTCTGGCCA TGTACATGNG TCTTTCCCTT NCTGTGGCTA TAAATAAATA CAGCCTGNAC 300
 ACANCGGACA GGNGGACCGT TCTGNACCAN GNTTGGGTCC TGNGNGNTAC CNAGGTNGAN 360
 GNAACTTTTT TTNGCTCAN TAAACTGN 389

SEQ ID NO:4940
 SEQUENCE LENGTH:131
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05885

SEQUENCE DESCRIPTION:
 GATCTCTCCG CCTTAGTTAA GAGCATGTGT CGGGAAATTC CTCAGAGTGC TCAGAGTCCC 60
 TGTATNTTTA TACCTTTTTA CAATGTTAAC TGTTCAGAAC TGNTTTTGT AACAAAACCT 120
 NNIGTTTTAA A 131

SEQ ID NO:4941
 SEQUENCE LENGTH:115
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05886

SEQUENCE DESCRIPTION:

5 GATCATGGCG CAGTTGGNCA GGAGATGTTT TGGCCCATCT GCTGTAGCGA ATATGTGAAG 60
TGGGAGGTGG CAACNGAGCT GCCNTTCCAC CACTATTNCC ACAAGCCGTG TGTNN 115

SEQ ID NO:4942

SEQUENCE LENGTH:105

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05887

SEQUENCE DESCRIPTION:

15 GATCCTCCCG CCTTNGTCTG CCAAAGCACT NGGGTTACAG ATGTGAGCCA CTNACCCAG 60
CCTAATCTTN ATAAATCTCC ATCCCCATTA CTCTGGTTCA CCCNN -105

SEQ ID NO:4943

SEQUENCE LENGTH:350

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05888

SEQUENCE DESCRIPTION:

25 GATCACGGAC GTGCAGCTCG CCATCTNCGN CAACATGCTG GGCCTGTCGC TCTTCTNGCT 60
TGTTNGTTCTC TATCACTACG TGGCCGTCAA CAATCCCAAG AAGCAGGANT GAAAGTGGCG 120
CTTTCTCCGC CCCAGGGTTC CAGGACATAG TCTGAGGCAA GATGGAGGGT ATGAGGGGCC 180
TTCACACTNC ACTTCATCCC TTCTACCCAT CACAACATAC AAAGCAACTA CACCTGGGAT 240
TTTNCCAAGC AGCTTTNATT TCCTCAGNGT CTTCTTAAT CCTATGGGNA CANGGAAGCT 300
30 GCCACTNGNN TAGGGNCCAG TATAGGGGGC TTNGCTTTTT TAACTGCNTN 350

SEQ ID NO:4944

SEQUENCE LENGTH:304

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05889

SEQUENCE DESCRIPTION:

40 GATCCAGCGG CAGTGACAGA ATCCAAAGAG GGAACAGAGG CATCAGCATC GAAGGGGCTG 60
GAGAAGAAAG AGAAATGATG CAGCTGGTGC CCGAGCCTCT CAGGGCCAGA CCAGACAGAT 120
GGGGGCTGGG CCCACACAGG CGTGCACCGG GTAGAGNGCA CAGGTAGGCC AAGGGGNAGC 180
TCCCAGGACA GGGCAAGGGG GCAGCANGGA TACCTGCNAG CCAGGGNCTC TNTGGCCTNT 240
NTTTTCCTAN TCCNTTTTTT TGGCCCTTCT TTTTNTNTG CCGTACANCN TGCAGGCAAA 300
45 AGNN 304

SEQ ID NO:4945

SEQUENCE LENGTH:64

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05890

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SEQUENCE DESCRIPTION:

GATCAAAACA AAACAAAAA GTTGTCTCTG AAAAAAAAAAC AAAACAAAAA AGTTGTCTCT 60
GAAA 64

SEQ ID NO:4946

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05892

SEQUENCE DESCRIPTION:

GATCAACCTT TGNTGCGAG GGTCTAAGTA GGGTCGAACA CAGAAGTGGG AAGNAGAGGG 60
GTGGGCCAGG GGCTAATGGT GTCAGTGTGT AAAGTTTTTG ACATACTAGC TCTATAATA 120
TATGAATATG GACAAA 136

SEQ ID NO:4947

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05893

SEQUENCE DESCRIPTION:

GATCCTCTGC TACCAAACAA TGATGTGGAT TCTTTTGCAC AGAAATATTT AAGGTGGGAT 60
GGTAAAAAAT GTCACAAAAG ACTCCTCACC AATACTTNAT GTTGATATCA CTTAATATTA 120
ACCAGACTTT GCTGTATTGC AATAAAACAG AGAACTGTTA AA 162

SEQ ID NO:4948

SEQUENCE LENGTH:405

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05894

SEQUENCE DESCRIPTION:

GATCATCGCC TCCCTGGTTT ATAGTAGACA GACCTTTTCT GTTTTTCATC CGACATAATC 60
CTACAGGTGC TGTGTTATTC ATGGGGCAGA TAAACAAACC CTGAAGAGTA TACAAAAGAA 120
ACCATGCAAA GCAACGACTA CTTTGTACG AAGAAAGACT CCTTTCCTGC ATCTTTCATA 180
GTTCTGTAA ATATTTTGT ACATCGCTTC TTTTCAAAA CTAGTTCTTA GGAACAGACT 240
CGATGCAAGT GTTCTGTTC TGGGAGGTAT TNGAGGGAAA AANCAAGCAG GATGGCTGGA 300
ACACTGTACT GAGGAATGAA TAGAAAGGCT TCCAGATGTC TAAAAAGATT CTTTAAACT 360
ACTGNAACTG TTACCTAGGT TAACCANCCC TGTTTGAGGT ATTTN 405

SEQ ID NO:4949

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05895

SEQUENCE DESCRIPTION:

GATCTGCTCG GAATCCTCCT GCTAAAGAAG GNTCTGGGCG TGAGCTCAGC CGCCCCGCAC 60

5
CCCCAATCCA GTACAGGAGG CTGCTGGTAC AAATACTGCA GTAATGACAC CAATAATGGG 120
GCAGACACAA CAGCGTGGCT TAGATTGTGC CCACCNAGGG AAGGTGCTGA ATGGGACCCT 180
GTTGATGGCC CCATCTGGAT GTAAATCCTG AGCTCAAATC TCTGTTACTC CATTACTGTG 240
ATTTCTGGCT GGGTCACCAG AAATATCGNT GATNCAGACA CAGATTATTG TTCCTGCTGT 300
ATTTGCTGGT TTNCCTGGTT GAATTGGTTN 330

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SEQ ID NO:4950

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05896

SEQUENCE DESCRIPTION:

15
GATCCAGAAT TTATTAGTTT AAAATGCAGG TGAACTTTTT TTTGCGTTTG GTTTACTTGT 60
CTGTCAAATG TTTCTTAAA CATGAACTG AATAAGGAGA AGAGTATTTT TAACACTTAA 120
ATTTCTTGGC AAATTTTAAA ACATTTTNA GTCTGTAATA CACTCCACTT GANGCACTTA 180
AGTNTTCCTT AAATGACTTT CCTTAGGTAA TGATACTGGT GTGTTTCCN AAGGCCCTTT 240
20
TAAAAAAGTN TNNNTAANTG ACTATCTGTT GAAANGGTGT CCTGTNCCTT NCTNCTAGNA 300
ATNTGGGN 308

SEQ ID NO:4951

25
SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05897

SEQUENCE DESCRIPTION:

30
GATCGGAAGC AGAAGATGGC CTTCTTAAAG AGTTTAGAAG AATTTATGGC AAATGTTGGT 60
GGTCTCCTTT GTGTAAAATA AACAACAGAA CTTTAAA 97

SEQ ID NO:4952

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SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05898

SEQUENCE DESCRIPTION:

40
GATCTGATAT TAAAACATCC AGTAGTACGA GTCTGTTTAT TGAATTTTAT GGTCCCTTTC 60
TTTGATGGTG CTTGCAGGTT TTCTAGGTAG AAATTATTC ATTATTATAA TAAAACAATG 120
TTTGATTCAA AATTTGAACA AAATTGTTTT AAATAAATTG TCTGTATACC AGTACAAGTT 180
TATTGTTTCA GTATACTCGT ACTAATAAAA TAACAGTGCC AATTGCAAA 229

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SEQ ID NO:4953

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS05899

SEQUENCE DESCRIPTION:

GATCCAGAGC CCCTCCCAT CTTCCTCTCT CTAAAAACAA CCCTACCCCC CATTGCCACC 60
 TTCACTCCTG TGTCTCCAGC TGATTAGCCT CAGACTCTTC TTNTATTGTT TTTCTTTTGT 120
 AAATAAAAAG CACCAGGTTT CAAA 144

SEQ ID NO:4954

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05900

SEQUENCE DESCRIPTION:

GATCCGTGCC CTGTAATAATG GATATNATGT TTTACTGATG TCTNTAATAC ATTTGTAAAC 60
 TTCCAATAAA ATTTGAATAA AAGAAATNTT GCCATTCTTC TCAAA 105

SEQ ID NO:4955

SEQUENCE LENGTH:325

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05902

SEQUENCE DESCRIPTION:

GATCTGGCAG CCCTGGAGAG GGAATATGAG GAAGTGCGCG AAAGTTTCTG AGGCATGTAT 60
 GATGGGTGCA AATGAATGTC AAGTTAAAT GGCATGTTTT CTTTCAAGC CGNTATATGC 120
 CTAGTGGGTA GTTCCCTGA TGAGCAGAAA AATTGAACTC AAATCAGGCA AGACTCTAGG 180
 NTCCACACTA AATTAAGTGG GTCAGTANCG NCANTGANCA CATTATTTCC TGGTCTACTG 240
 GGTACANGTC AGCTCTGCTT ACCTGNGGAG CNNTTTGGAA GCTTAAGAGT NCTTTTGAAC 300
 CTGGCTTGAG GTCAACTTGT TAGGN 325

SEQ ID NO:4956

SEQUENCE LENGTH:321

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05903

SEQUENCE DESCRIPTION:

GATCTGTACA GACAGGACAG AATGAACTC CTGCGGCTCT TTGGCCTGAA AGTTGGGAAT 60
 GGTGGGGGGA GAGAAGGGCA GCAGCTTATT GGTGGTCTTT TCACCATGG CAGAAACAGT 120
 GAGAGCTGTG TGGTGCAGAA ATCCAGAAAT GAGGTGTAGG GAATTTTCC TNCCTTCCTG 180
 CAGACCTGAG CTGGCTTTGG AATGAGGTTA AAGTGTGAGG GACGTTGCCT GAGCCCAAAT 240
 GTTGTAGTGT GGTCTGGGCA GGCAGACCTT TTAGGNTTTT NCTGCTTTAG TTCCTGAGGN 300
 ANNTNGNCA CTCTTTNTNT N 321

SEQ ID NO:4957

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05907

SEQUENCE DESCRIPTION:

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5
GATCCAGGGG CTGATTGGCA GCGTGGAGGA GCAGCTGGCC CAGCTTCGCT GCTGAGATGG 60
AGCAGCAGAA CCAGGAATAC AAAATCCTNC TGGATGTGAA GACGCGGCTG GAGCAGGAGA 120
TTGCCACCTA CCGCCGCTN CTGGAGGGAG AGGATNCCCA CCTGACTCAG TACAAGAAAG 180
AACCGGTGAC CACCCGTCAG GTGCGTACCA TTGTGGAAGA GGTCCAGGAT GGNAAGGTCA 240
TCTNCTNCCG NGNGCAGGTT CACCAGACCA CCNGTTTGAG GNCTCANCTA CCCC GGNTCG 300
GNCANCCATN TNN 313

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SEQ ID NO:4958
SEQUENCE LENGTH:54
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05908
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SEQUENCE DESCRIPTION:
GATCATTAAAT GTCATTGCAA TNGTTATTTT TAAAATAAAA TTTATAAAAA TAAA 54

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SEQ ID NO:4959
SEQUENCE LENGTH:208
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05912
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SEQUENCE DESCRIPTION:
GATCTACAAG AGCAAGCCAA CAGAGTAAAG TGGAAGGAAG TTTATTCAGA AAATAAAGGA 60
GTATCACAGC TCTTTTAGAA TTTGTCTAGC AGGCTTTCCA GTTTTACCA GAAAACCCCT 120
ATAAATTAAT AATTTTTTAC TTAATTTTAA GAATTAATAA AATACAAAAA AGAAAAAATG 180
AAAATAAAGG AATAAGAAGT TACCTAAA 208

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SEQ ID NO:4960
SEQUENCE LENGTH:92
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
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CLONE:HUMGS05913
SEQUENCE DESCRIPTION:
GATCCAAGTT ATAGATGGAA TTGAAGCCCT TGTNGCTGTA GATGTGCGTG CAGTCTGNCA 60
GCCTTAAGCC CACCTNGGCA CTTTTAGATA AA 92

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SEQ ID NO:4961
SEQUENCE LENGTH:270
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
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CLONE:HUMGS05914
SEQUENCE DESCRIPTION:
GATCAACAGT AACTGGATGT TTTNAGGNG CTCAATTGGA ATAAAAATAT TNNAATCTAT 60
TTGGAGACCA AAGGCAAAAT CGGTTTTCTT ACCTTTGGAA TTATTCGTAC CTTTATGGT 120
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AAATTTTACG TTTGACANGT ATTATGAGGA ACGTACCAAA AACCGGTTTG TAACAAATCT 180
NTAGAGNAGG TCTGAATCTN TCGNNCTTGC CTTTTCAGGT GCCATTTCTA CTGGCCTAAT 240

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ACAGNGCCAT TTGGCTTGTG AAGNNCCATN

270

SEQ ID NO:4962

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05916

SEQUENCE DESCRIPTION:

GATCTATGCC CNTNTTAATC TCCATCCATA TAGGAGTCAC GTTCTTTAAG ACAGATGGTG 60
 GTAGTTATTT TTGTGGCATG GTTAGATTG ACTGGTTTGT CAGAAGATTA CAGTTATGTA 120
 CTGCATAATG NCATATACAA TAGTGGTCCC ATAAANNNNN TAATGGAGCA GAAAATCTAT 180
 TGCCTCATGA TGTTTATGCC GGTTTANTGT CATAGNCTAG TGCATNACTC ACGTGN 236

SEQ ID NO:4963

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05917

SEQUENCE DESCRIPTION:

GATCGAGTAA GGAATGACCT NTAGATTGTG CGACTTTTGT TTTTGTITTN TTAAATTTTT 60
 ATAAACCAAG AATGATTCTT CCNGCTTCCN TCTCCTCACC ATCTTCCCAG ACGGAGTTCA 120
 AAGGCCACTT CTCAAGCAGC TTTTGGCACC TTCAGCCTCA GAGTGGAATC TTTTAAAGAC 180
 AGGACCCCTA TGTCCAGGNA AGGGGAAAAG GAACNTTGCC ANTGATAGTG ACCACAGCAN 240
 NNGCAANTAA TAGTAATNTT NATAN 265

SEQ ID NO:4964

SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05918

SEQUENCE DESCRIPTION:

GATCACATTT ATACAGTTAT AAAAATAAAG GTTTGATTTT GGTCGTTCTT CAAA 54

SEQ ID NO:4965

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05919

SEQUENCE DESCRIPTION:

GATCTCTATG GCTGTAAAAT ATTTCTTTAT AGCGTTATTA AAGTGTGTCT TAATAAAATT 60
 AAA 63

SEQ ID NO:4966

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear
 CLONE:HUMGS05920
 SEQUENCE DESCRIPTION:
 5 GATCCACAAA AGAAGTGAAA GTAGCCTTAA CTGATGACAT TCCACCATTG TNATTTGTTT 60
 CTGCCCCACG CTAAGTGATA CCATATATTC TTCCCCCGCC CTTGAGAATG TACTTTGTAC 120
 ACCTATCCCA AACCTATAAG AACTAATGAT AATCCNACCA CCCTTTGCTG ACTCTCTTTT 180
 TGGACTCAGC CCGNCTGCAC CCAGGTGAAA TAAACAGCCC TGTGCTCAC AAA 233

10 SEQ ID NO:4967
 SEQUENCE LENGTH:137
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 15 CLONE:HUMGS05921
 SEQUENCE DESCRIPTION:
 GATCTCTGCG TTTTATACT GAGTGTGCCT AGGTTGCCCC TTATTTTNA TTTCCCTGT 60
 TGC GTTCTA TAGATGAAGG GTGAGGACAA TCGTGATAT GACTAGAAC TTTTATTATA 120
 20 AAGAACTTT TCCAAA 137

SEQ ID NO:4968
 SEQUENCE LENGTH:90
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS05923
 SEQUENCE DESCRIPTION:
 GATCTGTAAA CCCTTACCCC TTGCTGTTC GAGAGCTACT CTTTGTAGTG TTCTTGCATG 60
 30 CATATATAAT AAATATTTT TCTATTGAAA 90

SEQ ID NO:4969
 SEQUENCE LENGTH:259
 SEQUENCE TYPE:nucleic acid
 35 TOPOLOGY:linear
 CLONE:HUMGS05925
 SEQUENCE DESCRIPTION:
 GATCTAAATC AATGCAATAA AGTAAGAAAA ATAAATAAAA GTATTGAAAA GATTGAAAAG 60
 40 AAAGAATTGA AGCTGTCTTT ATTCACAGAT AATGACTGTG TATGTTAATA ATCCTAGANA 120
 TCTACAAAAN TCTGCCAAAN CTAATTAGTG AGTTTGGTAA TGTTCAGGA TATAAGCTCA 180
 ATAGAAGTAG TCTTTNGTAT TTCTGTGTAT TAGCAGTGAG CATTTGGAAG ATGANATAAN 240
 ANTACAGTTT CATTTCAA 259

45 SEQ ID NO:4970
 SEQUENCE LENGTH:350
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 50 CLONE:HUMGS05926
 SEQUENCE DESCRIPTION:

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5
GATCTGTGCC CTTGGTCCCA GGTCAAGGCC ACCCCCTGCA CCTCCACCTG CCCAGGCCCC 60
TGCCTCTNCC CCAAGTGGGG CCAGCTGCCC TCACTTCTGG GGTGGATGAT GTGACCTTCC 120
TTGGGGGACT GCGGAAGGGA CGAGGGTTCC CTGGAGTCTT ACGGTCCAAC ATCAGGACCA 180
AGTCCCATGG ACATGCTGAC AGGGTCCCCA NGGAGNCCCC GTCAGTAGGG ATGTTTGCCT 240
GGNTGTTTAC GTNGGGGTGT NCAGTGNACG TGNAGGAGCA CGTGGGCGGC TTCTGNGGGG 300
GNCAATGGTT TGGGGNANGG GAAGGTGTGC CAGCAAACCT NGGNNGGATN 350

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SEQ ID NO:4971
SEQUENCE LENGTH:202
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05927
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SEQUENCE DESCRIPTION:
GATCCACGGG CTGCAGAATG GATATTGTAT TAGCAGGCAT GAAACAACA TTCATCTCCT 60
TGTGCATCTC TGTCTGAGTT CTTGGGTGAC CAAATGCCTT GTCAATGAGT GTAGTATTTT 120
GAAAGGAATC TTTTTTTTTT TTTTCNCAGC AGTAGGNCNC AANGGTGGGC TTCAATTATT 180
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CAGTAAACTA TGTAANCAGA AA 202

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SEQ ID NO:4972
SEQUENCE LENGTH:127
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05928
SEQUENCE DESCRIPTION:
GATCCAGCT ACTCAGGAGG CTGAGGCAGA AAAATCACTT GAACCCAGGA GGTGGAGGTT 60
30
GCAGTGAGCA GAGACCACAC AACTGCACTC CAGTCTGGGC AACAAAGTGA GACTCTGTNT 120
TACTAAA 127

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SEQ ID NO:4973
SEQUENCE LENGTH:249
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05932
SEQUENCE DESCRIPTION:
40
GATCCTATCA ATTAGACAGT AAATAAGTGC ATCTTTTTTG AGACAAATGC AGTAGGCAAA 60
TGTTGACATT CACCAGGGCA CAGTCAATCC CTGACAATT CAGAAGTTT GTTGCCAATA 120
CTGATTTATG TGGGCAGATT CTGGNAGTCT GCTGCTCCTT CNCTCATGGA TNACCTNCNN 180
NNNCCTACAG TTGCACCTAT TCTACACAAG AGTGGCATT CANTNGTATCC AGGAAAGCTA 240
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GANCAGGTN 249

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SEQ ID NO:4974
SEQUENCE LENGTH:189
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05933
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SEQUENCE DESCRIPTION:

GATCCGAGTC GTCCGGAAAT CCATTGCCCCG TTTTCTCACA GTTATTAACC AGACTCAGAA 60
 AGAAAAACCTC AGGAAATTCT ACAAGGGCAA GAAGTACAAG CCCCTNGACC TCGGCCTAA 120
 GAGACACGTG CCATGCGGCN NCGCTNAACA AAGACGGGNG AACTTAAGGC CAGGAGAGCA 180
 NNGNAGGAN 189

SEQ ID NO:4975

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05934

SEQUENCE DESCRIPTION:

GATCATCATC TTTCAGGTGG TCTTCCTGGG CCTCCTGGCT GGCCTGGTGG TCCTATTCTA 60
 CGNATATCCT GTCCNCTGTG AGTGGTATGA GTTCCTCACC TGCATCCCCT TCACTGACAA 120
 GTTCTGTGAG AAGTACGAAC TAGATGCTCA GCTCCACTGA GCTNGCTGCG GGGTTNCAGC 180
 GNNGGGTGTG CTCCAGCAGG GCCAGAGNCA GNCAAGANCT ACNCTGNNGN 230

SEQ ID NO:4976

SEQUENCE LENGTH:66

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05937

SEQUENCE DESCRIPTION:

GATCATTAAT TATATGTAAA ATAATATACA TTCAGTTATT AAGAAATAAA CTGCTTTCTT 60
 AATAAA 66

SEQ ID NO:4977

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05938

SEQUENCE DESCRIPTION:

GATCTATGTC TTTAGCTAT GTGCTTTTAA AACTTTGTAA TTTAGACATT GATATTGTCA 60
 TCAGATTGCT TATCAGCATT GCCATAAATA TAATTATTAA TGAAA 105

SEQ ID NO:4978

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05939

SEQUENCE DESCRIPTION:

GATCTGCCCA CTCGCGCCAC CCAGAGTGCT GGGATTACAG NCGTGAGCAC CGTGCCCTGAC 60
 CAAAATAAAT AAATTTTAAA ATAGAAGTAA CTCAACTTCT GAGCTATGGA ATAGTTCTCT 120
 GTACCTCCAG TACCTAATAA AGAACCCAAA TACTGCAATA AA 162

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SEQ ID NO:4979
SEQUENCE LENGTH:189
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05940
SEQUENCE DESCRIPTION:
GATCGAGGAC TGGTACAGGA ACCACCAGGA GGAAGACCTG ACTGAATTCC TCTGCGCCAA 60
CCACGTGCTG AAGNGAAAAN ACACCAGTTN CCTGGCAGAG CAGTGGTCCG GCAAGAAGGG 120
AGACACAGNT GCCCTGGGNG GGANGAAGTC CAAGAAGAAG AGCATCANNG CCAAGGCAGC 180
AGGNGTCAN 189

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SEQ ID NO:4980
SEQUENCE LENGTH:66
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05941
SEQUENCE DESCRIPTION:
GATCTNITTA AAAAATGTAT AAATTNCTTG AGTAATTCCT GGATTAAAGA ATATGCACTT 60
TTTAAA 66

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SEQ ID NO:4981
SEQUENCE LENGTH:113
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05942
SEQUENCE DESCRIPTION:
GATCGCTGGC ATCAAGAGTG GAGAGGACCG NACAGCCGNG AAGGCAGCCT TTCANGAACC 60
TATGCTGGTG AGTGTAGGAG ATNGCTTANG AAGAGCTCAG ACCCTCTATC AAN 113

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SEQ ID NO:4982
SEQUENCE LENGTH:316
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05943
SEQUENCE DESCRIPTION:
GATCATAGTT ATTATACAAT GTAGTGAGTC CTGCATGGGT NCTCGATGTG TAATGAAACC 60
TGAAATAATA AGATAATAAG AAAAGCAATA ATTTTCTAAA GCTGTGCTGT CGGTGATACA 120
GAGATGATAC TCAAATTATA ATAAACTCT TCATTTTGTG AATTATAGAA GCTACTNNNN 180
NTAAAGCCAT ATTTTTTTAG GGAAACTAAG GAGTGACATA GAACTGATGA ATGAGCAAAA 240
GTAAGTTTTG CTGGATTTTT GTAGAACTCT GGACGTTGAG GATTCATTAT GCTGTGGTTA 300
ACTTTAAATA TTTTNN 316

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SEQ ID NO:4983
SEQUENCE LENGTH:338
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05946

SEQUENCE DESCRIPTION:

5 GATCAGCCCA CTTCACTCTC CCAAAGTGCT NGGATTACAG ACATGAGCCA CCTACCTGNC 60
 CGGAGTTATT TCTAAACACA ACTAATATCA GAATCGCCTA TTTCATAAAA ATTGGATTCA 120
 TCAAATNAAT CTTTGGCCAA CAACCATTTC AGAATGATNN NNANCATCAT ACATAGGAAT 180
 GCTACGTTTT CTAGGATTTC ACATTTACAG CANTCGAGAN TTACCCTATT TTGTAAATNG 240
 10 AAATAACCAT TACTAAAATC ATGCAAGCTT CAGCTNCTCG GGTTCCTATA GNGTCACCTA 300
 AATCGTATGT GNATGGATAC ATAAGGNTTA TGNATCAN 338

SEQ ID NO:4984

SEQUENCE LENGTH:154

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05947

SEQUENCE DESCRIPTION:

20 GATCCGCCCC CCTTGGCCTC CCAAGGTGCT GGGATTGTAG GCGTGAGCAC CCCTGGCCTC 60
 NAATNTTCAC ATTTATATAC TGAATTATAC ATTACATTAT GTACATATGA TAACTAGTTG 120
 CTTAAATATT TTAATAAATT ATATCTAATG TAAA 154

SEQ ID NO:4985

25 SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05948

30 SEQUENCE DESCRIPTION:

GATCATGCAG AGAATATATA TTGTACTGTA GTAATTTTNT ATTTACATTT GTATGATGTG 60
 ACATAATAGA TGTGAATGTT AATCACTGNT TGACTATGTT AATAAAGTTG TTAACTATA 120
 AA 122

35 SEQ ID NO:4986

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS05949

SEQUENCE DESCRIPTION:

GATCTCTATT TTAATNNTAA TTCTAGTTAG TTGTGCCTNA ACTCCAAAGA AATGNGAGTA 60
 TAGTGAGGTA TGTCTGACTC CCACTTCTTA TCATGCTCTG AACTAGTTNT TTATGTTTCT 120
 45 TTGTGTTNCC TTN 133

SEQ ID NO:4987

SEQUENCE LENGTH:351

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05951

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SEQUENCE DESCRIPTION:

GATCGCACAC ATGCTTTNTT NNNATATGGA GTGAACACAA TTATGTACCA AATTAACTT 60
 GGCAAACCTT CTATTGCCCTG TCCCATGTGC ATCTTATTTA AAATTTCCCC CATGGAAATC 120
 ACTCTCCTGT TGAATATTTC CAGAGCTCTA GGTGTTTAGG CAGCGTGTGG TGTCTGAGAG 180
 GCCATAGCGC CATCATGGGC TGATTTTNA TTACCAGGTC CCCCAGAAGC AGGTGGGGAG 240
 GCTCTGCTTN CTGCTGCCGG TCTNCAAGNC TTGGACCTNT GGACCCTGNT TTGTAAGNG 300
 TAAATTNGTA TCCTTNAGGG AAACCCAAGT GTCAACCTTG TTTNTTCAAT N 351

SEQ ID NO:4988

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05952

SEQUENCE DESCRIPTION:

GATCGACACA TTCGNATCTN NAATGNGTGC TCTGGGGCCT GTCTGAGTGC CGTGGATGCC 60
 CATTCCCAGG TGTGCTCCAT CCTCTGGTCT CCCCATTACA AGGAGCTCAT CTCAGGCCAT 120
 GGCTTTGCAC AGAACCAGCT AGTTATTTGG AAGTACCCAA CCATGGCCAA GGTGGCTGAA 180
 CTCAAAGGTC ACACATCCCG GGTCTGAGT CTGACCATNA CCCCAGATNG GGCCACAGTG 240
 GCATCCCGNA GCANCAGATT GNGACCNTGA GGCTATGGNC GCTGTTTTGA NGTTGGTACC 300
 NTGCGNNGGN 310

SEQ ID NO:4989

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05953

SEQUENCE DESCRIPTION:

GATCTGAAAC AAAATCTTTC TAAAACATTG TTTTAGTTGT CAAAGCACCA ACAGGACATT 60
 TTGGGATGTG AAATGTAATT TCTTGGAATC TGTAATTTGT ACTTAATATT TNAGGCTTGT 120
 ATTTAATATA ATAAATAGGT GTTGTGTAAA 150

SEQ ID NO:4990

SEQUENCE LENGTH:240

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05954

SEQUENCE DESCRIPTION:

GATCATCCCT TCACAATCCC AGAGTGGCAG GCGGGACCAG CCCCATGGTC TGGCTCCTGT 60
 CACCTGGGTC CGTGCCAGCA CAATCTGCCA AAGTTCTAGA GACCCTGTTT CCTTCCCCAT 120
 NAGGTCACAT GCTTCTTCTG TGTGTATTTT TTTTGTGTTT TATGGTTTTT GGAGCAATTT 180
 AAACCTCCAG TTGNNTATTT TCACAAAAGA AANTAAAATT GCAGTTGCAA GCCCTTTAAA 240

SEQ ID NO:4991

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05955

SEQUENCE DESCRIPTION:

5 GATCCTTTTT TGTACATTTA AGAATATTTT GATTATATTA AACAAGACTG CTGATTTTGC 60
 TACTTTTTTT AAGGGGTCTT CANGTANGTA AAACATACAT CGTAGCTAGA AGAAAAATGT 120
 ACCTTAAATT TGCATCTTCC CTCTCATACC CAAGCTGTAA ACAATTGAAA TATTTTGTCT 180
 TAAATCACTT GGTTCATAC ATGCTTATTT GTTTTAAAC CTGTATCATC ANACTCTCTC 240
 10 TCNAAATTTA AAATGCTGTT GAATATGATA CTTTGTAGGA GAGAGTGTGC TCAGAACTTA 300
 GACGGGGTTT GGTAGGCCAA NGN 323

SEQ ID NO:4992

SEQUENCE LENGTH:110

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05956

SEQUENCE DESCRIPTION:

20 GATCTTAACC ATCACAAGTT TTTACCCTCT TCCTTCATGC CTGACCTCAA CCCCCTCTC 60
 CTCATCCTAT TCCTAAATTA GGCTAATAAA GTGAAATTGG TATACTTAAA 110

SEQ ID NO:4993

SEQUENCE LENGTH:228

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05957

SEQUENCE DESCRIPTION:

30 GATCGCTTGA GCCCAAGAGT TTGGGACCAA TCTGAGCAAT ATAGCAAGAC CCCATCTCTA 60
 CAAAGAATAA AGAAAAATTA GACTAGCTTG GTGGCATGTG CCTGTGGTCC CAGCTACTCA 120
 AGAGGCTGAG GTAGGAGGAT TGCTTGAGCC TGGGAGGTGG AGGCATCAGT GAGCCATGAC 180
 CGTACCACTT CATTCCAGCC TAGGTAACAG AATAAGACCC TGTCTAAA 228

35 SEQ ID NO:4994

SEQUENCE LENGTH:182

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS05959

SEQUENCE DESCRIPTION:

GATCAAGCTA CACATCAGTT TTACAATATA AATACTTGTA CTACCTTAAT GATAAGNACT 60
 CCTTAAAGTT CCATTGCTA ATNATTAATA CACTGTTTGG GCTGGCCAGT TTTTCATGCA 120
 45 TGCAGCTTGA CGATTGAGCA CAGTCAGGCC TTTGTATTAA AAATGAAANA TGAAANAACA 180
 AA 182

SEQ ID NO:4995

SEQUENCE LENGTH:300

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS05960

SEQUENCE DESCRIPTION:

GATCAACTGG TTTGTGTTTT GCTGCTGCAT TTATCCCAAG TNAACAGGT TTAATCTCCA 60
 GANGAAAACC AAAATACCAT GGGATTATG CTGNATTGAC ATCTTGCCCT AAACGNACAA 120
 CATCATAGTA ATTTGTCATG GGCAACATGA CCAGNGAGAA GATTTTTGTC ATGATTTTAA 180
 ATACACTGNC ACGCTACTGT TGGTTAAATT TAAACANGTT TTACCTGCAG NAATTCTCTC 240
 ACAATAACC NGCAATAACT TGAAATGCAT NCCCTTTGA ACACTTCCTT TNCTCATGGN 300

SEQ ID NO:4996

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05961

SEQUENCE DESCRIPTION:

GATCCTGCTC CCTTCTGGGC TCTGACTCTC CTGGAAATCT CTCCAAGGCC AGAGCTATGC 60
 TTTAGGTCTC AATTTTGAA TTTCAAACAC CAGCAAAAAA TTGGAAATCG AGATAGGTTG 120
 CTGACTTTNA TTTGTCAA TAAAGATATT AAAAAAGGCA AA 162

SEQ ID NO:4997

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05962

SEQUENCE DESCRIPTION:

GATCTCAACA ATATTCTTCC AAAATGGCAT ACATCTTTG TACAAAGAAC TTGAAATGTA 60
 AATACTGTGT TTGTGCTGTA AGAGTTGTGT ATTTCAAAAA CTNAAATCTC ATAAAAAGTT 120
 AAATTTTGT CTGAAA 136

SEQ ID NO:4998

SEQUENCE LENGTH:53

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05963

SEQUENCE DESCRIPTION:

GATCTGACCT CAGAATATGC TTTCAGTGTT ATTCTGACT AGTCCTTTTT AAA 53

SEQ ID NO:4999

SEQUENCE LENGTH:334

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05964

SEQUENCE DESCRIPTION:

GATCTGCATA AAGTNTTACA AACAAAATCC TCTTNATGAG CAACACATTT TTCAGCTGCC 60
 AGTCAGACCA ACTGCTGTAA AGAACTTATA TCAAAGTGAG AAGCCACAGA AATGGAGAGT 120
 GGAAATATAT AGTGGTCAAA AGANGATTAA GACAGTTTGG CAACTGAGTG ACAGCTCACC 180

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CATAGACCAT CTGANTTTNC ACAAACCTGA TTTTTCGGAA TTATCACTAN ACGGTAGCCT 240
 NGAAGAAAGG NTATNCTTTN CTANCATGGT TACCTGCAGC CAGGTGCATT TGCAAGTGAN 300
 GTGTGCTGGT TGANGTCCTC TTNTAAGGGN ATTN 334

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SEQ ID NO:5000

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

10

TOPOLOGY:linear

CLONE:HUMGS05966

SEQUENCE DESCRIPTION:

GATCTTCCAC TAGATGTAC CAAAAGGACT GAGAACTAGA GAAAAGGGCT GCGATTCTG 60
 CTCTCCTGT AAGATTGCAC AAAAGANTAA ATTGCATTGA TCGCTGTTG CATGAAA 117

15

SEQ ID NO:5001

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

20

TOPOLOGY:linear

CLONE:HUMGS05967

SEQUENCE DESCRIPTION:

GATCCCCCTT CNAGGTAGTG AAAATNAAAT NCGCCGGAGT GTGGCTGCCT TCACCGCGGA 60
 CCCTCTGTCT CTCCTGCGCA ACGTCTGAGC ACAGGAGCCC ATCCTTGGCT CTAGGNTTCC 120
 NCCGCTGGAA GCCTTCTGTT CANACACCCC TTATGNTCCA AGGCCTGATG TGAGCCAGCG 180
 GGGGGTGCAT GGGAAACTGN ACCCNACAAC CCACATCCTN CATCCTGACT GCAGCANTGG 240
 GGTCCCCGG CAGGGNTGGG TGAGGNAGGA AGGGGGTCAA GCCTGGNGTN 290

30

SEQ ID NO:5002

SEQUENCE LENGTH:284

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35

CLONE:HUMGS05968

SEQUENCE DESCRIPTION:

GATCACCGTG AATCCGGCTT CCTCTGAGCA TTCGATGGCC TTAGCACCTC ATCAAGCCAG 60
 CACATCCTGC CTGCTGTTGC AGCCTGGCTG GGTATTCTCT TCAGTTACCC TAATCCCATG 120
 ATGCCTGGAA CCTTGATTAC CGTTTTACAT CAGCTCTTGT ACTTTNAGT ATATTTTCAT 180
 AATGAGTTAT ATTGTCATTT AGACTTTGAA CAGCTCTGGG AAATAGAAGA CTAGGGTTGT 240
 TTCTTAAAGT TTAGCTCATG TTATAATAAA AAGTTGNAAT GAAA 284

40

SEQ ID NO:5003

SEQUENCE LENGTH:346

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05969

SEQUENCE DESCRIPTION:

GATCGTCCCT GGTACCCGA CTTTGAATT TGCACCATCA TGTTCAGTG AAGATGCTGT 60
 AAATAGGTTT AGATTTTACT GTCTATGGAT TTGGGGTGT ACAGTAGCCT TATTCACCTT 120

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TTTAATAAAA ATACACATGA NGACAAGAAA GAAATGGCTT TTCTTACCCA GATTGTGTAC 180
 ATAGNGCAAT GTTGGTTTTT TATAAAGTCT AAGCAAGATG GTTTTGATA AANTCTGAAT 240
 TTTGCAATGT ATTTAGCTAC AGCTTGTTA NCGGCAGTGT CATTNCCCTT TGCACTGNAA 300
 5 NGAGGAAAAA NNNGGNATTA AAAGGGTTGC CAANTTGGCA AAAGGN 346

SEQ ID NO:5004
 SEQUENCE LENGTH:337
 SEQUENCE TYPE:nucleic acid
 10 TOPOLOGY:linear
 CLONE:HUMGS05970
 SEQUENCE DESCRIPTION:
 15 GATCTGCTCG CCTCGGCCTC CCAAGGATG GGATTACAGG CACCAGCCAC TGNGCCTGGC 60
 TGGCCTCTGN TTTTAATAA AACNTGACTA GAGTGACTCC ATCTTAAAGT GAGTAGCTAG 120
 GCACTTACAA GGTTTCATGCT TATGGCCTGA AAATAACCAC ATCCCAGGCT GACCACCAAT 180
 TATAATTACA GANTATTTAT GGCCATACAG NNCATGNTCC ACCAAGCCTG CAGAATGTCC 240
 AAATNTCCTA AGAATGCAGC CNCCATTACT TANATATANC ATAAATGAGC ANGCTTAGGT 300
 20 TGCAGGNTTA ATGGTCGTGG ATANCAGCAT TNGNCCN 337

SEQ ID NO:5005
 SEQUENCE LENGTH:211
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS05974
 SEQUENCE DESCRIPTION:
 30 GATCAGGGTT ACATAGGTTT GGTAATAA GTGCTGGAAA TNAACCTTCT CCCAGTAGTC 60
 TTAGTTCATG CTCAGTGAAC TTAACTTTA TCCAGATATG GTTTTCCTTC AGCCTTTCTA 120
 TTCCCTTTCT AGCCAGTGAA AGACCCGCTG CCCTTTGACC TCAGCCCCCTC CAAGCCCCCA 180
 AGTTTAAAC GCCACCCNCT GCCACCAGAA A 211

SEQ ID NO:5006
 SEQUENCE LENGTH:103
 SEQUENCE TYPE:nucleic acid
 35 TOPOLOGY:linear
 CLONE:HUMGS05975
 SEQUENCE DESCRIPTION:
 40 GATCCTCCTG CCTTGGCCTC CCAGGGTGCT GGNATTGTAG GTGTAAGCCA CCAGGCCAG 60
 GCTAACCCTT TATAAGAAAT AAAGTCTCCT CTCAAAATTT AAA 103

SEQ ID NO:5007
 SEQUENCE LENGTH:265
 SEQUENCE TYPE:nucleic acid
 45 TOPOLOGY:linear
 CLONE:HUMGS05976
 SEQUENCE DESCRIPTION:
 50 GATCCGTCCTG GGCACGCTGG AGCAGGAGGC CACAGCAGAC GTGGAGTGGC GCTGGCACCC 60

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TTACACCAAT ACCGCACGCA AGAGAGTCTT CCTGAGCACC GAGTGAGCAC ACTCACCCT 120
CAGTCAGGAC ATGGACTTGG AACTCAGGAT TGGGCTGTCA TAGACAGACC CACCAGTAGG 180
AACTGTCA CA GAATGGCCTG CTGAAC TGGG ATGTGGA ACT GTGGCGGGT GAGAGGTCTG 240
AATAAACCGT CTGTGTCATG GCAAA 265

SEQ ID NO:5008

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05978

SEQUENCE DESCRIPTION:

GATCATCAGC AATNCCTTCT GCACCANCA CTGCTTAGCA CCCCTGGCCA AGGTCATCCA 60
TGACAACTTT GGTATCGTGG AAGGACTCAT GACCACAGTC CATGCCATCA CTNCCACCCA 120
GAAGACTGTG GATNGCCCCT CCGGGAAACT GTGGCGTGAT GGCCGCGGGG CTCTCCAGAA 180
CATCATNCTT GCCTCTACTG GCGCTGCCAA GGCTGTGGGC AAGGTCATCC CTGAGCTGAA 240
CGGGAAGCTC ACTGGCATGG NCTTTCGTGT NCCCACTGGC AANGTGNTCA GTGGTGGTNC 300
NGANCGTN 308

SEQ ID NO:5009

SEQUENCE LENGTH:336

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05980

SEQUENCE DESCRIPTION:

GATCCGATTT GTGGAGGATG AGAAAGATGA AGAAGACAAT NAGACGAGAA CACTTCTAAG 60
GCGAGCCACT CCACACCCAG GGGAGTTAAA GCACATGAAA AAGACAGTGG AGAATTACG 120
GAATGACATG AATGCTGCTA AAGGACTGGA CTCAAACAAA AACGAGGTCA ATCATGCCAT 180
TGACCGAGTG ACCACTTCTG TGTAGAGTTT CACCTCCAAG TTTTACCTCC TGTGTCTTCC 240
TCTGTGTGCG AGACGTTCTT GTCTGCTTNC CGGGAGCCTC ACGTGTCTCT TGTCTTAACC 300
AGCCCCCGNG NGCCATCTTT CCCGTGGAGT GTTGTN 336

SEQ ID NO:5010

SEQUENCE LENGTH:327

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05981

SEQUENCE DESCRIPTION:

GATCGCTTTT NTGACTGTTT ATCTGTCCTT GACAGTGGCT GTCATATTGA CTACTTTNTT 60
GATTTGTTGG TATTGGGGAC ATTTTAAAGG CTGAGTTATT TTTGAATGTC ATGTTTATGT 120
CATAGACGTA GTTTTCGCAT CCTTGAATTA AACTGCCTTA ACTCCTTTNG TGGTATAAGC 180
AAACTCCAT GGNCNNNGTC CTGGTATCCT TTTCTGTGT GGTGCGCTG TGTCTCTG 240
CCTAGGGTTA AGTNTGCAAG ATAATACTC GTGAGTATTC AGAATGTNGT NCCTAATAAA 300
TGCAC TTGTG TCTCTCTT TTTTNN 327

SEQ ID NO:5011

SEQUENCE LENGTH:326

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05982

SEQUENCE DESCRIPTION:

GATCAAGTTT TAAATCCTCC TCCTTCCCTT TTTNCTGGAG TNTTGAGGGC CAGAGTTTNN 60
 NTTTTNTTT TTGTTTTTGT TTTCCTGCTT GCTACTGTTT TGTGGTGTG AAAAGTGGTT 120
 TAAACCTGAG ACTAACTTAA ACACTTCCTT GACCTTCTNG TTGCCTGTNC ATTTTGTGC 180
 CAAGGAAGTA GCTGCCCCAG TGTATGTCTT GCCTTCTCCG CGTCATTGTT GGAAGAGGAG 240
 AGATGCATCG AGCAGTCCCA GCTGCTTTTC ATTTATAACG GCTTCTTTCC AGGACCTGAC 300
 AGAAGTCAGG GAAGAGTCCC TGGGNN 326

SEQ ID NO:5012

SEQUENCE LENGTH:326

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05983

SEQUENCE DESCRIPTION:

GATCATTTGA CTGGGCTGGA GAACATCCTT TTACATGGCC NTCCCATGGA TGTGCTGTAC 60
 ATCTGCTTAA AAGAAAATAA TTACTIONAT GAGCGTCTTC AAAAGGACTC TTGGTGCAAC 120
 AGACTNAATT GGAACCTCAGC TTTTCTAACT GTCACCTGCAC CAAGCTCTGC TGGAGGAGTG 180
 ACCAGACTCA CGATTTGGTA TAGTGGGGCT CTCAAGCATC TTCAATTTGA ATGTACATGC 240
 TGCTGAGGAG CCGGTGAAGT CATCAGTTCC GCACATCCCT TCTACCCTNC AACTGCATGG 300
 GAAGCCAAAG TNCTGGTTTT GAAGAN 326

SEQ ID NO:5013

SEQUENCE LENGTH:327

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05984

SEQUENCE DESCRIPTION:

GATCTGGGGG CTAGCAGTGA GTACCCGCAT GGTATCAGCC TGCTCTCTCC GCCCACGCCC 60
 TGCTGTCTCC AGGCCTATAG ACGTTTCTNT CCAAGGCCCT ATCCCCAAT GTTGTCAGCA 120
 GATGCCTGGA CAGCACAGCC ACCCATCTCC CATTACATG GCCCACCTCC TGCTTCCCAG 180
 AGGACTGGCC CTACGTGCTC TCTCTCGTCC TACCTATCAA TGCCAGCAT GGCAGAACCT 240
 GCAGCCCTTG GCCACTGNAG ATGGAAACCT NTCAGTGTCT TGGNATGACC CTACCNAGGT 300
 GGTGGGTCTC CAACANAGCC ACTTGTN 327

SEQ ID NO:5014

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05987

SEQUENCE DESCRIPTION:

GATCTCAAAA AAGAAGGAAT TTCTCCTTG TTTCTTGACG TTAATGTAAG AATACTTTAA 60

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5 ATCTCTAAGC TTCTGAAGTG TTAGAGGTAG AGATGGTCTA GTAAAGATGT AGTAGTAATG 120
TTTTATCCAT TTAGCATGTG TTTATNTNTC CATATGTNCT CAAAGGTGAC TTATTGGTTC 180
ACCTCAGTGA TATTACAGCT AAANNNTCA TTCATTAGCA AAAGGNAAAG TGGTCTCAAC 240
CTAACATCAG ANGTGTTTCT NATTATGNTN TNATATTGCG TTGGANTATT GGN 293

SEQ ID NO:5015
SEQUENCE LENGTH:71
10 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05988
SEQUENCE DESCRIPTION:
15 GATCTATACA GGTATGTCTG ACGGGACGCA GCACCGTGGG CACGCACCAA ATAGAGTTTT 60
TAAAAGAGAA A 71

SEQ ID NO:5016
SEQUENCE LENGTH:354
20 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05989
SEQUENCE DESCRIPTION:
25 GATCCTNTTC TTTCAGCAGG TGAAAAATAA AACGCAGTTC AAATTTTCATG GTTTTAATTT 60
TCANCTCAGA AGCACTCAAA AATGCAAAAT GTGATAATGG GCACTTGTTT AAAAGANTTA 120
GTGTATCCAG CCTTCACTCC AGCTGGTTAA AAATGTTGCA CTTNTCAGCA ACCCTACCAC 180
TTTCATCTGC TGAAGGNCA NATGTGCTTG GTTTTACNAT TATGTAATCA CAACTTACTT 240
TCTGCTTGTN GTNGCTTAAA ATTATGTATT TGGTCTTTGG GCTGCAANTT GGTTTTATGC 300
30 TGGATTTGAT GNTNACTGGC NGNNAGTTTG ACCTTTGCTG NTATGGGGAA ANTN 354

SEQ ID NO:5017
SEQUENCE LENGTH:149
35 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05991
SEQUENCE DESCRIPTION:
40 GATCGGAAGA GGGAGGAGAG GCAGTCTCTT NACAAAATAA AGTATTTTAA TTCATTNTA 60
TTTATTAAAT NAAAAACAA TCCCATGGTG TCCCTNTTGT TTGGTGAAC CTAATGACTG 120
TNGAAATAAA GTCCTGTNTT TNCCTAAA 149

SEQ ID NO:5018
45 SEQUENCE LENGTH:259
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05992
SEQUENCE DESCRIPTION:
50 GATCCAAAA CCTCCACCAT AGAGACTGAT AAATTGTAGC TATTGAAGCT GTACTNCTTT 60
GTACATAGGT GCTTTGGGAG ACTCACTCTG ATTATTGTAA ATTNCTCAC TAGCTACCCA 120

55

ACATTAAATT CAAATAACAG AGAATTTCTA TTGTACAGCC TTGCAACTTT NCTTTAAGTT 180
TAANCCTTNC TNNAATAA AATTTTAAGT GGCAAAATN ATTATTAGAN GAGAAAANGT 240
GTGCTCATT TTNANTATN 259

5

SEQ ID NO:5019
SEQUENCE LENGTH:173
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05993
SEQUENCE DESCRIPTION:
GATCACCTGA GGGGAAAGN TTGTNTCTCT CTTTCTGTT GGGNGAGGGG GATGGGGGAC 60
TTTTNTTGGT GGCTCCACCATATATCCC TCCTTNACCA TAGTACTCCC ACCCACTTCC 120
ATCACCCATC CAATAAATG CAGCCAGGTT TAGCCTTTGG CTTGGTCAC AAA 173

15

SEQ ID NO:5020
SEQUENCE LENGTH:266
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05994
SEQUENCE DESCRIPTION:
GATCTACCCT CTAGTTTACT TGCTCGGGAG AAGAACTGA CTCGTTTAT TTAGTGCTA 60
TTTAGCGAGC CCAGAGTAAC GTACATTGT NCTGTTTCA ATTTGTGCT ATCGCAAATC 120
ACAAAAAAC TGTATCAAT TCACATTCAT CATCAGCAG AGACCCATT CTTGTGCTC 180
CTGCCAGCTC AGGNTATNAT GTTCTTTTT TCATGTTGC CAGTCTGTTA GGTAAAANGT 240
CATATGCGGT TGTTTAATT TGCAAA 266

30

SEQ ID NO:5021
SEQUENCE LENGTH:121
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05996
SEQUENCE DESCRIPTION:
GATCAAGGTG ATTCTGAAAG TTTTAATTT TAATGTTGTA ATGTTATGTT ATTGTTAATT 60
GTACTTTATT ATGTATTCAA TAGAAAATCA TGATTATTA ATAAAAGCTT AATTTCTCAA 120
A 121

40

SEQ ID NO:5022
SEQUENCE LENGTH:58
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05997
SEQUENCE DESCRIPTION:
GATCTAGTTG TATTTCTCAT ACTAGCAATG AACAAATTGGC AGTTGAAGTA AAAGCAA 58

50

SEQ ID NO:5023

55

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SEQUENCE LENGTH:238

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05998

SEQUENCE DESCRIPTION:

GATCGTAATA TCTCGAACAT TACATAGACA CTTAAAACCT TTAGTTGTAT TTCATCAAAA 60
ATCTGTTTCAT GCCCCACGTT GGTTCAAAA CATACTATGC TTTTNCCTCG TGTTATTTC 120
TATATNCATT TTNGTGTGTA TGTGTATGTC ACAAATATTG ATATGCCTGG TTGTTTATTT 180
TGGTNTGCTA TTATGCCTTT TTCAAAATAT AAAANTAAAC TNGTAANTNC TAACNAAA 238

SEQ ID NO:5024

SEQUENCE LENGTH:198

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05999

SEQUENCE DESCRIPTION:

GATCGAGACC AGCCTGACCA ACATGGTGAA CCCTGTCTCT ACTAAATAC AAAAATTAGC 60
TGGGCGTGTT GGCACACACC TGTAATCCCA GCTACTCAGG AGGCTGAGGC AGGAGAATTA 120
CTTTAACCTG CGGGGGGAGC CTAGATTGCG CTACTGCACT CCAGCCTAGG CAACAGAGGG 180
AGACTCTGTC TCATTAAA 198

SEQ ID NO:5025

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06000

SEQUENCE DESCRIPTION:

GATCTTGTGT CAAGTTAACA GGAAGACTGC CCACAGATGA CACTGCATTT GTATCCCTGT 60
GGATGTAGAG TATTGGGAAG GCATTTNTTT AGTTTCATGC CTCCAAACCA TGCATTGTCT 120
GTNATGTATC TGCCAGCCT TCTCAGAACT CAATGTTGTA CATTTTCCC TCTAGGACCT 180
GAATTGGTCT TGGAGGCAGC TTTTAGAAAT CCTCTATGTA GTTCCTGTCC ACATGCACTA 240
TATATNGGTT TCTCCNNGNN CCTCTCATGA ATCTGCTCGT TTCTCTACNT CTTGGCTACG 300
N 301

SEQ ID NO:5026

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06001

SEQUENCE DESCRIPTION:

GATCCTGGTA ACTGTTCCAG GATTGCTCCA GGTTTGAGAT GGTATTGCTA AATTTAAAAT 60
TAAACAAGAG ACCCAACAAC AGCTTTTAAA GTGTCTTCTA TNGCATTGTA TTTNNNTNAA 120
CTTGCCCCAA TGATAGAAAA GTCTTTTGCT GAAATNATTT TNATGATTTT GGTTTATCGT 180
TTATAAANG GAAAAGANAT ATACAAACTT TGACTTTGGT GACTTTGTGA AGGTTTCTTT 240
AAGATGTGCA TTCCTTTCTG CTTCNCCTCT AGTAAAGGNT TTAATACCGG GAAAAAAG 300

N

301

SEQ ID NO:5027

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06004

SEQUENCE DESCRIPTION:

GATCANGAAA AAGACAAAAT CTNTCAAAGC CTTCAAAACC AGGAAAAGAT AAGGAGCCCA 60
 GGAAAAGNAA AAGGTAAAGT TCGAAGAANT TTAACCATTT TTNACTAGCG ACAGCAN 117

SEQ ID NO:5028

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06005

SEQUENCE DESCRIPTION:

GATCAGGAAT GGTGTGGATT GAGAACTTGT TACTTGAAGA AAAAGAATTT TGATATTGGA 60
 ATAGCCTGCT AAGCGGTACA TGTTGGGTATT TTGGNGTTAC TTAAAAANNA TTTTNGGGAT 120
 AAGAGAATTT CAGCAAAGAT GTTNTAAATA TATATAGTAA GTATAATGNA TANTANGTAC 180
 AATGGAAAAAN ACAATTATAT TGTAATAATTA TANCTGGGCA AGCATGGNTG N 231

SEQ ID NO:5029

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06008

SEQUENCE DESCRIPTION:

GATCATGGAA CAGAATCACC CTCTCCTGCA TGTTTTNTT TCTGTCTCCT GCTTTNCTGT 60
 TCTTTTCCA CTTTCTCTAT GTGTGAGTTG ACTTGGCTGC CTGTAGCTTC ATCGTCAAAG 120
 CTGGTCCACG TGGNTCAAC TTGGTGCTCT CACTCTCCTC CAGCATTGTT TTTGGCATCA 180
 AAGCTAGAAT TAAA 194

SEQ ID NO:5030

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06010

SEQUENCE DESCRIPTION:

GATCNTTTTT AAGAGCGTTT CCATACTATG NTTACATTTC CATATTTNTA TGAATAATTT 60
 TGCATTCAAT AAACAACCAG ACTCAGAAA 89

SEQ ID NO:5031

SEQUENCE LENGTH:174

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06011

SEQUENCE DESCRIPTION:

5 GATCTTGGAG AGTTTCTCCT TGTGATTTTA GTTCATAAGT ATGTCACCTT TCATTTTATA 60
 GNGTTTCATCA TTGAGTAATG GATTAAGTGA AAATCCAGGA GTATCCATCT NCAGTTATGT 120
 NCTGAGGTGA TAATNCATCC AACATATTN TNAGCATAAA TATNANGCTT CAGN 174

10 SEQ ID NO:5032

SEQUENCE LENGTH:260

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06013

15 SEQUENCE DESCRIPTION:

GATCTAAAGC AGCCCTTTTT ACAGTCTAGT TAGGAGAGAG AAAATAATTG CAAATATCCA 60
 CTTAGAGGCA AAGAACAATT TTTNATTATC AAAAAGGTTT CTGCACATTG TTGTGGCAAT 120
 ATTGTATCTG TTTAGAAAAT GGGCTTTTCC AAAAGCAAAC AAAGATAGGT TCCTCAGGTG 180
 20 ACCAAAACCTG AAAATCAATA TTTCCATGTT TCATTAATCA NGGCATAAAA TACAATTAAN 240
 GCAAAATATT TTACATTAAA 260

SEQ ID NO:5033

SEQUENCE LENGTH:85

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06014

SEQUENCE DESCRIPTION:

30 GATCTCTGGA GGTGAGGCT GCAAGTGAGT CATGTTCTGT TCACTACACT NCAGCCTGGG 60
 CGATAGAGTG AGAACCTGTC TCAAA 85

SEQ ID NO:5034

SEQUENCE LENGTH:352

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06015

SEQUENCE DESCRIPTION:

40 GATCCAGAAC ATGACAACAG AGAGCTGCGT CCACAGGGAA CAAAGCCCTG ACCTNTCTCT 60
 CCACATTACC CTTACAAAAA CAGGCCCTCC CCATGAGAGA GCTACACGGC AGGGGCAGAC 120
 ACTGTGAGTA TAAGCTACTT TCCTCCCTGG AGTGCTCTAT GTGGGCAGAA CATGCTCTCC 180
 TTGCCCTCTCC TGGAAAGGTGT CTTCTCTATG GCCTGGCTAG AGCTGNAAAA AAGGGACACA 240
 45 CCCNACTTCG GTAAAAGAAA NTAGGGAAAG GCCATATACA NNGNCAGACT TTGTAGTTTA 300
 TTTTGTATTT TTTNTAAAT NNTTNCCT TTTACATTTA ANGGNAGATT GN 352

SEQ ID NO:5035

SEQUENCE LENGTH:206

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS06016

SEQUENCE DESCRIPTION:

5 GATCTTAATG GCAAGAAGGC CACAGAGGTA CTTTNCCTTN TTNAGCTCAG GAAAATATGT 60
CAGGCTCAAA CCACTTCTCA GGCAGTTTAA TGGACACTAA GTCCATTGTT ACATGAAAGT 120
NATAGATAGC AACAAGTTT GGAGAAGAGA GAGGGNGATA AAAGGGGGAT ACAANNATG 180
TACAGAAATN NTTTCTGGC TGGNCN 206

10 SEQ ID NO:5036

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15 CLONE:HUMGS06017

SEQUENCE DESCRIPTION:

20 GATCTGGCCA TGTATATGGT AGCTGTGTTT TAATTGAGA ATCTTGAGGG TAGAGCCACA 60
AATTTCAATT CTNACATTTT CATTGCAAA GTGACTAGAG AAAAAGAAAT CAGCTTAAAT 120
GAGGTATTAA GTAATGTTA GAGTCGTAGG TATTAAGTAG AATATAAATC CTTAGAAATT 180
GTCTTTATAC CTTCAAAAAT TATNCTATGC ATTTNTCATA GANCTGTGAT TACAANGNNG 240
TCTGACTACC ATGTCTTTAA ACATATGGCA TCTCTCATCT TTCCTTCCCT TATGGGGGCT 300
ACATTTNGTN CCATTTTCCA GNAGTAGNCT TTAAGTTNCC GGTGCCNNNC N 351

25 SEQ ID NO:5037

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS06018

SEQUENCE DESCRIPTION:

35 GATCCTGAGA CTATNTGCAT GCTNCTNTCT AAATGATAAT TAANAGGAAA TTTCATGGAT 60
TAACCCATGG GTTAAATGCA GCAAGGAAAC TTACAATGTC CCTNTATATA TAACATGCAN 120
CTTGTTTTGG N 131

35 SEQ ID NO:5038

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS06020

SEQUENCE DESCRIPTION:

45 GATCCTNCAG GAGATTGAGC GTCTCCGCCT GGAACACGAG CAGGCCTCCC AGCCACCCN 60
TGAGAAGGCA CAGCAGAACC CCACGCTGCT GGCAGAGCTG CGGCTGCTGA GGCAAAGGAA 120
GNATGAACTG GAGCAGAGGA TGTCGGCCCT GCAGNAGAGC AGGCGGGAGC TGATGNGTCC 180
ANNTGGAAGA GCTGATGAAG TTGNNCNN 208

50 SEQ ID NO:5039

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS06021

SEQUENCE DESCRIPTION:

5 GATCTGAGTG ACAGGGTCAA GTTCTCTTTG AAAACAGGAG CTTTTCAGGT GGTAACCTCC 60
CAACCTGACA TTGGTACTGT GCAATAAAGA CACCCCTAC CCTACCCAC GGCTGGCTGC 120
TTCAGCCTTG GGCATCTTCA TAAATGGAAA 150

SEQ ID NO:5040

10 SEQUENCE LENGTH:365

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06022

SEQUENCE DESCRIPTION:

15 GATCTGCTGG GTTTTAAGGA GTGATTTNCT TTCTNCCCCT TGAAGGGGAA AAAGCTATTT 60
CAATTGGTAC ATTTAAAGTC CCCCAACTAT GGGGAGGTAC CAATTCTGGA CANNNTGCCA 120
CTACAACAAC ACTAAACCTG AACTTTTCAA CTCCGTTGGT GGTGGGAGGC AGCGGGCAGA 180
AATTTACTGT TGGCCACTGN CAGGTCTATT TNATATTTC AAGGAATATT GGGTGCTGCA 240
20 TATAGNACT GAAGGGGTC ATGNATTTAA CCTGTGATTA GGTGNTTTC CTGTCATTTT 300
TGAGAGACTA AAATNGTGGG GGGGCAGATG TNCANAATAC CTGGTACANG TTTTAAAAA 360
NTGGN 365

SEQ ID NO:5041

25 SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06023

30 SEQUENCE DESCRIPTION:

GATCTTNACC TTATTCAGTC AACTCCCTTT AAACCCCTGG CACTGAAAAC ACCACCTCGT 60
GTACTTACGC TGAGTGAAAG ACCACTAGAT TTTNTGGATT TAGAAAGACC TCNNNCAACC 120
CCTCAAAATG AAGAAATCCG AGCANNN 147

35 SEQ ID NO:5042

SEQUENCE LENGTH:98

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS06024

SEQUENCE DESCRIPTION:

GATCCGTCCT CATTTTATTG GTGATGATGA ATGGGAATAA AATNAGGGGG CTGTCTACTA 60
GAGCCTGGAA TAAATATGCT GCTTTGTGGA TTTTAAA 98

45 SEQ ID NO:5043

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS06025

SEQUENCE DESCRIPTION:

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GATCTGTATG TNAATATCGC CAAGCAGGAT ATCATGTTGT CCCTGGCAAA CCTGGTGAGA 60
 CTCAACCAAG CCCTTTTCC CCCAAGCAAG AGGAAATGG AATCTNTGTA TCAGTGTGGT 120
 TTTGATGACA CTGTTAAGTT TNTACTTAAA GAAAATTGGT TTGAATAAAA TGCATAAAAG 180
 TTTATANTGC ATTNATTGT NNANNTGN 208

SEQ ID NO:5044

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06026

SEQUENCE DESCRIPTION:

GATCTTTGCC CACCTCTTCC TCAGAGCCCC CACTGAGGGG CCGTAGCCCT ATCTAGGGCT 60
 GTGGAAGGAG CAGACTGGTT CCTAACTCTC TCCCTCCTCC TGCCACACACA CATCAAAAGA 120
 ATCTTCCCTA CACCCTTCTC TGCCTTTATT TTTTGATTG TGCAACTTGT AACTAGGTGT 180
 TTATGGAGTA AAGGAGAATG GAAAAAGAA A 211

SEQ ID NO:5045

SEQUENCE LENGTH:345

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06027

SEQUENCE DESCRIPTION:

GATCTTGTTT ACAGCAGTGC TTTTGTGAAC AATTATTTAT TTGCTGAAAG NGCTCTTCTG 60
 AACTGTGTCC TTTTAATTTT TGCTTAGAAT AGAATGGAAC AAGTTTAAAT TTCAAGGAAA 120
 TATGAAGGCA CTTCCTNTTT TTCTAAGAAG GAAGTTGCTA GATGATTCCT TCATCACACT 180
 TACTTAAAGT ACTGNGAAGA GTATCTGTAA ATAAAAGGGT TCCAACCTTT TAAANAAGNN 240
 GGAANAACT TTTTGGTGCT CCAGTGTAGG GCTATCTTGT NNANAAANTG TCAACAAGGG 300
 GGAAANGTAA GNCTGTCNAG CTNGGGGATT GGTCACCTGN NTTAN 345

SEQ ID NO:5046

SEQUENCE LENGTH:298

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06028

SEQUENCE DESCRIPTION:

GATCTTATAA ATTCCTGGG CAAGAGTGTA TGCATACAAA GTTTTCACTN TTGTGAAATG 60
 TAATTTTNC TTTTGTGCAA NGGGATGAGG TGATTGGAAT TGCTTACC ATGCTGCCTT 120
 TATTCTCAA CTGGCAAACT TAGCATGTTA GGTGTATTAA CCTCATCAGT CTTGAAGAAC 180
 ATGTGGCTCA TGAGTATAAC ACTTCTGTAG NGNNCNCNCCN NACANAAGTG AAGAATTAAC 240
 TTCTCCTNCA GAACAAGTGC ANTTCAGAAG GCAAGCTCTG CATTCTACCT TGNTTGAN 298

SEQ ID NO:5047

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06030

SEQUENCE DESCRIPTION:

5 GATCGGGGAG CCACAGGGTG TCCAGACCCA GCGGGAGCCG AGGATTCAGG AGAATCTCCC 60
CAGTCAGCTT CAGAGGTGCC CACAGTNTGA GCTCTAGTGT CTNCCAGGTA GGGGGNCAAA 120
GCGGNAANCT GNCCGGGCCT NGGGGGTGCA AGN 153

SEQ ID NO:5048

10 SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06031

SEQUENCE DESCRIPTION:

15 GATCAACATT CGCAATGCCC GGAAACACTT TAAGAAGCTG GAGAGAGTGG ATGGCCCCAA 60
GCACAGTCTC CTTATGCGTT GAATATTGCC AAATNCTCTT NCTGAAAATC CTGAATTGCC 120
TTTTTNGTTT GCATCCTTTA TTTTNAATAT TCATAATGTC GTGTGCTTAA AAGTGGGCTT 180
TGAAGTGTGT GCTGCTTACT CCTNTCATCT TTCTCCCCGC TCCCCAGTC TTAAACATT 240
20 GGACGNTATT TACTCAGCTA CCCAGTAGAG CTTGAAGCTG ACCTTTCTGA GAAAGTTGGG 300
TATGGTGGTA ACACTTAAAG TAGGTGGTTC CGTGTGGTGT TCTTCANTNN N 351

SEQ ID NO:5049

25 SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06032

SEQUENCE DESCRIPTION:

30 GATCAACAAA TTGCTCAACC TGCAAAATCT TTGATTAGAC TTAGCCAGCC CATCTGGCCT 60
GCTTTGGGTT TAAAAAANNTTT TTTTAACCNC ANAANTGGAA AAAGGGGAAG 120
GGNN 124

35 SEQ ID NO:5050

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06034

40 SEQUENCE DESCRIPTION:

GATCATGACT ACTGGGTTGT CATTTCATG GACAGTGCTA TGAAATAAGT ATTTTGGAAA 60
NCAACGGAAA TAGTTTATAT CGATATTCTT GATTCAAATT TANCCATCCA ATTGTTTAAT 120
TAACCTTACT GATTTTTTAC CTATATCACT TTNCTCTNAC ACTGNAANTA TTAGTTCTAN 180
45 TAGCATTATG NCANTTACCT ATGTTGCTTT ATGAANGN 218

SEQ ID NO:5051

SEQUENCE LENGTH:128

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06035

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SEQUENCE DESCRIPTION:

GATCAATGCT GGCTTCCACG CCTGANITCT ACCAAGTATG CCACACCAAA AAGGATTATN 60
 AAGAAATTGG ACCTAGCATT TNCGTGACA ATCCAGTGT TGGAGTCATG TCGTAAAATT 120
 GNCNCCNN 128

SEQ ID NO:5052

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06036

SEQUENCE DESCRIPTION:

GATCTCATTG AGATTCCAAA GAGAATCATT TACAAGTTAA TTTCTGTCTC CTTGGTCCAT 60
 TCCTTCTCTC TAATAATCAT TTAGTGTTC TCAAAGAATT GTCTACATTA CCCATCTCCT 120
 CTTTTGCCTC TGAGAAAGAG TATATAAGCT TCTGTACCCC ACTGGGGGGT TGGGGTAATA 180
 TTCTGTGGTC CTCAGCCCTG TACCTTAATA AATTGTATG CCTTTNCTCT TAAA 234

SEQ ID NO:5053

SEQUENCE LENGTH:145

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06038

SEQUENCE DESCRIPTION:

GATCTGCAAG GCATAGGCAA GCCTCTTAGA GAATCAGAAA AGTGATTTGG AAGGAACTTC 60
 AGCTGTACT ACTTTGTTA AGCAATCAA ATGCTGTTCT TTAATGTTAC TGGACGTTTC 120
 AAATTAAACA CAAGAAAACC TGAAG 145

SEQ ID NO:5054

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06039

SEQUENCE DESCRIPTION:

GATCAACTGA AGACCCCAA AGGCCCTAC TTGATGGTTT TGAGGGGCAA CATTGACTCA 60
 TTTGCCCCNT CCTCTCGGA ATGTTGGACA AAGGGAATAA AATTGGGGAT ATGTCTACTT 120
 CAAA 124

SEQ ID NO:5055

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06040

SEQUENCE DESCRIPTION:

GATCTAAAC ANCTTCAGAC TACCTANGAA ATANTNNAC CAAATAAGAA ACAGCACTGT 60
 GGAATAAAAT ATACCATTGT GAACATATCT GATGCTGCAA TGAATGTAA AGTTCCTN 118

EP 0 679 716 A1

SEQ ID NO:5056
SEQUENCE LENGTH:316
SEQUENCE TYPE:nucleic acid
5 TOPOLOGY:linear
CLONE:HUMGS06041
SEQUENCE DESCRIPTION:
GATCTCCTAC TCCATCCAGT CCTGAGGAGC CTTAGGATGC AGCATNCCTT CAGGAGACAC 60
10 TGCTGGACCT CAGCATTCCC TTGATATCAG TCCCCTTCAC TGCAGAGCCT TGCCTTTCCC 120
CTCTGCCTGT TTCCTTTTCC TCTCCCAACC CTCTGGTTGG TGATTCAACT TGGGCTCAA 180
GACTTGGGTA AGCTCTGGGC CTTACAGAA TGATGGCACC TNNNNNAACC CTCATGGGTG 240
GTGTCTGAGA GGCCTGAAGG GCCTGGAGCC ACTCTGCTAG AAGAGACCAA TAAAGGGCAG 300
15 GTGTGGAAC GGCAAA 316

SEQ ID NO:5057
SEQUENCE LENGTH:106
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS06042
SEQUENCE DESCRIPTION:
GATCTATTC TTTNCACTTG TATAACTTTG NAATAAATNC CTCATCCCTT AGACTAAGAG 60
25 AGTGGGTGTC TGTGAAAATN GTNTTCTCCT TCATAATACC TAAATN 106

SEQ ID NO:5058
SEQUENCE LENGTH:74
SEQUENCE TYPE:nucleic acid
30 TOPOLOGY:linear
CLONE:HUMGS06043
SEQUENCE DESCRIPTION:
GATCGAATT AAAAGAACA TGGAAACCTG ACTACGTTTC AACAAAAATA AAACNGTTT 60
35 TTTCCCTCC TAAA 74

SEQ ID NO:5059
SEQUENCE LENGTH:325
SEQUENCE TYPE:nucleic acid
40 TOPOLOGY:linear
CLONE:HUMGS06044
SEQUENCE DESCRIPTION:
GATCTCTGGC GCTGGCAGAA GCAGAATCCT TCAGGCTTTG GCANGCAAGC NTGAGGACCC 60
45 TCCCCTACCA AGGACCAGGA AAAGCAGCAG CTGCCTGCTC TCCAGCCTNT GGCAGGAACT 120
CAGGGCCCTG GAGCTGCTGG GGCCAAGCCA AGGCCTNCCC TACCTCAAAC CCCAGCTGGG 180
CCCGNTTAGC CCACCAGGCA TGAGGCCAAG GGCTCCACTG ACCAGGAGGC CGAGGTCTCT 240
AACTCTTATN TTCCACAGGG TCCAAGAGTT CATCAGGACC NNNAAGAGTG AGTTNAGGGG 300
50 GGGCAAGGNT TCTNGNAACA AAAGN 325

SEQ ID NO:5060

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06045

SEQUENCE DESCRIPTION:

GATCTGCCTN TAAAGCCAGT TTAAGAAGCA CTNATGANAA CACCTGGACT GTGTATAGNG 60
 ATTGCACATT CCTTATCCTT CAGCTNCAGG ACAGGTGGAG CAAATGN 107

SEQ ID NO:5061

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06046

SEQUENCE DESCRIPTION:

GATCTCAGAG CATTTC AATT AGGGATGCTC AAACGCAACT TTTTCTACTT CCCCATTTCA 60
 GGTGTGAGAT GTAACCCACC TTNACCATAA ATTGGCTTTN NATAGTGCTA AA 112

SEQ ID NO:5062

SEQUENCE LENGTH:298

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06047

SEQUENCE DESCRIPTION:

GATCACAACA TACAAATCA ATTCAGTGCA TGCTTTAGGT GTTAAGCATG AGATTGTACA 60
 TGTCTACTGT TAGGTCCCTG CATCTGTGGT GCTAGGTGAG TATGAGAAGA TGTC AAGGAC 120
 TGGACGTATT TTGTTGCCTA AAAAAAAAAAG GNTGTTTGTN GCGGTTTTAA ATATGCTTAT 180
 TTNGTGTGTC NCNNNCTACC TTTTACACAC TGTTGCTTTG TGGGTTTGTT TNGNATGTGC 240
 GTGTGTTATA CAGTNGTTAA ATTTCCNTGC AGAAAAATAA ATGTCCNGAA TTCTCAA 298

SEQ ID NO:5063

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06048

SEQUENCE DESCRIPTION:

GATCTCCCAG TGAGCCATCA CGATGCCCGN TTTCAAATAA ATNTTAATAT TGTCACCAGA 60
 AA 62

SEQ ID NO:5064

SEQUENCE LENGTH:55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06049

SEQUENCE DESCRIPTION:

GATCTNCTGC CATGATGCCT ATTTGGTGTN TTTCTAATTA AAATGAAATC ACAA 55

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SEQ ID NO:5065
SEQUENCE LENGTH:51
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06050
SEQUENCE DESCRIPTION:
GATCGCATCA TTGCACTCTA ACCTGGGCAA CAAGAGCAAA ACTCCATCAA A 51

SEQ ID NO:5066
SEQUENCE LENGTH:210
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06051
SEQUENCE DESCRIPTION:
GATCTGCTGA AAGGNAAGCA AGAACTATAA GGAGGNTGTG TAGTTGCAAA AATGGCTCCA 60
TCGGTAACTC AAGCTTCAGA ATGTTATGAC ATACAGAAAA TCAAAGATGC TGTGTCTTAG 120
CATTGAGTAA TATGGGTGGT GCTGTCTGGT CAGATTCAGT NAACTGTTCA GAACAAAATT 180
NCCTCTGAAA TNCNGTTGAG AAAGNCTGTN 210

SEQ ID NO:5067
SEQUENCE LENGTH:211
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06052
SEQUENCE DESCRIPTION:
GATCAAGTCA GCATTTGGGG TCGGGATTG GGCAGGGAAC TTTGGGGTGC AAATATCTGG 60
TGAAACCACC AGAGAATTTN TTTGTCAAAG TGACATGTAT AATTTTAGTT GAGACGTGTT 120
TGTGTATATA TGTGTATTG CCTTNTTTA GTAGCACGGT TATTTGCTAA AATAATTGTC 180
AAAAAATTGC TCTGTCGGTC GGTCTTTGAT N 211

SEQ ID NO:5068
SEQUENCE LENGTH:230
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06053
SEQUENCE DESCRIPTION:
GATCTAGAAT CTTGTCTCTA GGCTTCTAGG GGNTTATCTG AGTCTTTTAT CTAAGACAAA 60
TGCAACAGTT TTCTTTTCAA ATGCTCAGAA AAATAGTGAT GATGATGATG ATGATGATGT 120
TCATTTGTAT ACATTTACAT GCAACCACAG CATTGTTTTT ATTATAATAC CTTAGCAATA 180
ACTAATGAGA ACATGTTAGG TGATGTTAAA TAAAATAATT TTTTCCCAAA 230

SEQ ID NO:5069
SEQUENCE LENGTH:108
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06054

SEQUENCE DESCRIPTION:

5 GATCGCACGG ATGCAGCAGG AAGACCAGGA GGGGCCGCCT ACGTAGCCCC AGCTCCAGCC 60
ATCCACCCCN CAGCCCTTTN CTNCAACGTC ACCANTAAAT TTNTTTTN 108

SEQ ID NO:5070

10 SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06055

SEQUENCE DESCRIPTION:

15 GATCACTGTT AATGATTTGC CTGTGGGACG CTCCTGGAT GAGGCTCTGC GGCTGGTCCA 60
NNNNTTCCAG TACACAGACG AGCATGGGGA AGTTTGTCCT GCTGGCTGGA AGCTGGCAGT 120
GACACGATTA AGCCCAACGT GGATGACAGC AAGGAATATT TNTCCAAACA CAATTAGGCT 180
GGCTAACGGA TAGTGAGCTT GTGCCCTGCT CTAGGTGCCT GTNCTGGGTG TCCACCTGTG 240
20 CCCCCACCTG GNTGCCCTAT GCTGACCCAG GAAAGGCCAG ACCTGCCCTT CCAAACCTCA 300
CAGTATGGGA CCCTGGAGGG CTAGGCCAAG GNCTTTTNN 339

SEQ ID NO:5071

25 SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06056

SEQUENCE DESCRIPTION:

30 GATCACAACC TCANCNAAGA CCACGANGAA GCCCNCAACA GCCACGCCCA CGACTGCCCG 60
GACGAGGCCG ACCACAGACG TAAGTGCAGG TAAAAATNGA GN 102

SEQ ID NO:5072

35 SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06057

SEQUENCE DESCRIPTION:

40 GATCGCCTTA ATACCAGAAA TGATTAGAAG TGCTGATTTA GATTCAACAA ATACCATATG 60
TCCTTATCAT TTTTGTAAG AAGAAATTGG TTAAGTCCTA ACTTCAATG TGTACCCAAA 120
TACTTGATT TTATGCTTTT NATAAATGT AATTTTCAGC ATTANTACAC ATCCGATTAT 180
GCCTTATTTA TATATGNGG ANTAAAGGTT ACCATGTTTA TACCTGTAA A 231

45 SEQ ID NO:5073

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS06059

SEQUENCE DESCRIPTION:

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EP 0 679 716 A1

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GATCTTGGTT TCATGTGTTT TTGAAAGTGT TATTGTTTAA AAAATGAAAA AAGCATATNT 60
GCTAAAGAGC TGTCAGGTTT TCATTACTGA CTCTGTANAA TACTGNTC TTTGTGTACT 120
GTGTGTTATT TTGCCAGCT NGCTGCATTA GCCTTCAAAN GTATTGGGA AACCTNAAGG 180
ATGAACCTAC AGTTTCTNGC AAAGGTACCA TTNCCTTTCC TGGGGGTANT TTNGGTCCCN 240
GTNAACTGGN 250

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SEQ ID NO:5074
SEQUENCE LENGTH:298
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06060
SEQUENCE DESCRIPTION:
15
GATCCTCGCG GGCCTCGGAG AATTCCTCCA CTGCCATGCC CTCCCCCAGC TACCAGTGCA 60
CTAAGGCGCA CTTGGCCGAA CTTATGGTCC AGGCAGGCC AGGCCTCCGT GATGGCCGTG 120
GTGTGCTCA GCATGCACAC CGNCCGCTGC ACTTTGGCCA GGTCTCCAC AGGGACCACC 180
GTGGGGGGCT GGTAGTAAAT NCCCACCTGT CAGAGATGGG CAGCATAGAA TGAAGTTTAT 240
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ATTGGGCTCA GAAATGGGGA GCTCATTAAA AATCAGAGCT TGTGGNACCA GTTNCAAA 298

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SEQ ID NO:5075
SEQUENCE LENGTH:80
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06061
SEQUENCE DESCRIPTION:
GATCACTGTG TCAATGGAT GGGAAATNTT ATNTTAATAT AAACAGTAAA ATAGCATTGT 60
30
TTTCACTTGC AGCTTTNAAA 80

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SEQ ID NO:5076
SEQUENCE LENGTH:210
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06062
SEQUENCE DESCRIPTION:
GATCTGTATG TNCAATATGG TAGCTACTAG CTACATACAT CTATGAGCCA GACACTTAAG 60
40
CACTTGANGT TTGGCTACTG CACATTGACA CATGGTGTTA GTAAAANCAT AACTGGATA 120
CACTGGATT TTGGNCTTAG TATGGAAAAA TATATTANGT ACCTCANTTT AAAAATACTT 180
ATTACATGTT AATATTTTGG TTGTANNNNN 210

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SEQ ID NO:5077
SEQUENCE LENGTH:91
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06064
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SEQUENCE DESCRIPTION:
GATCATGTTG TATTTNATTT TACTTATTTT TTTTACATT CCCAAGGCTC TGTCATCCAC 60

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CTTTTCATTA AATCATTCTA CCAATCTCAA A

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SEQ ID NO:5078

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06065

SEQUENCE DESCRIPTION:

GATCAATGTA AATCCTCACC TGCCCTTTGA AGAGCCAATA AGGGCATCTT TGTCTTTAAA 60
TACAGCAAAT GTTATTGAGA TTTTGTACTT GTCTATCTGT TTACCTCAGT GTAGATGATA 120
TGAGGATGGN ATAATATGT AAATTGTTTT TGAAAATAAT TTGTTTCCCC ACAACTTTTG 180
AAGGTTTTAT TTGTNGTTGT TATTACTAGT TCAGTCCCAA ACTNACCCTG TCCTTTTCAG 240
AGAGCTAATG GCCATGCTTT NCTTCAAAGG AAAGAATAAT TNATTTGGAA TGANAGTGGG 300
GATTACTTTG CATAANN 317

SEQ ID NO:5079

SEQUENCE LENGTH:75

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06066

SEQUENCE DESCRIPTION:

GATCTTTATT CTAACCTTTT TTTGTAAAN ATATCTATTG ATTTCCATAT GCAATAAACC 60
TTTTTTTCAG AGAAA 75

SEQ ID NO:5080

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06067

SEQUENCE DESCRIPTION:

GATCGCACCA CTGCACTCCA GTCTGGCGAC AGAGTGAGAC TACATCTCAA AAAAAAANGC 60
CGCAATTTTN CATTGNTTC ANCAGANCTC TGCCATTCTA AACATTTCTA AACTTTTACT 120
CTCAATTNCT GTACTTAAN 139

SEQ ID NO:5081

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06068

SEQUENCE DESCRIPTION:

GATCTCAITT TCAGTTTAAG TAACTNCTGT TACTTAAGTG ATTGCACITT TCTCAAATTG 60
AAGTTTAATG GAATAATAGT TCTCAGGATA GTATTTTGTA AATAAAGATG GNCTTGAATA 120
TGAAA 125

SEQ ID NO:5082

SEQUENCE LENGTH:284

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06069

SEQUENCE DESCRIPTION:

GATCCTACCA TGGCAAGAAG AGCTTCGAGA CTTTCTCTCA CCGCCGCTCT TGCCTGGTGA 60
 GGCCTCTAAT GAATGATGAA GGCCTGAAGG TCAGATACCC CCCGAGCCCG GCCAAGATGA 120
 CCCAGCACTG AGGAGGGGTT GCTCCGCCCTG GCCTGGCCAT ACTGTGTCCC ATCGGAGTGC 180
 GGACCACCNT NACTGGCTCT CCTGGCCCTG GGAGAATCGC TCCTGCAGCC CCAGCCCAGN 240
 CNCANTNCTA TGNTGACCTG CTGACCTGTG CACACCCNAC TTTN 284

SEQ ID NO:5083

SEQUENCE LENGTH:280

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06070

SEQUENCE DESCRIPTION:

GATCTAACCA TGACCTGTTT CACGTCATTC ACATTCAAAA TGAATGAAGG GATGANCATT 60
 TTCTCTGGTC ATTTTTTATT ATTTATACCC TTTTGCAAAT NCTAGTAGAG AATGAAGTGG 120
 AGGAATAAGT TATAAATGAA CAGTGGCTTA TGA CTCCAAG AGTTAATCGT GTTATTTTGG 180
 TAGCTGTCTG TGTAGGTGTG CATGTNGTTG CGAGTTTGTG TTGNGNTTTA CAAGCAAAAN 240
 TTATATNATG NTTCAACTTT CTGGAAATGC TTNTAATTN 280

SEQ ID NO:5084

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06071

SEQUENCE DESCRIPTION:

GATCATAATA TGAATNTCCC ACTTATTAAT AGCCTTTTAA TAAATATATA ATTAATTCA 60
 AA 62

SEQ ID NO:5085

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06072

SEQUENCE DESCRIPTION:

GATCTATAAT CACCAGTGCA CTCCACCCTG GGTGACAGAA TAAGACCCTG GCTGAAA 57

SEQ ID NO:5086

SEQUENCE LENGTH:68

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06074

SEQUENCE DESCRIPTION:

GATCTCAGGA TTNAAGCACA GTGCCTGGCA TACAGCAGGT GCTCAATAAA TACTTATCAA 60
ATTGGAAA 68

SEQ ID NO:5087

SEQUENCE LENGTH:269

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06075

SEQUENCE DESCRIPTION:

GATCAAGGTT TAGTTAACT TCCACTGTTA AAATAAAGCT TACATAGTTT TCTTCCTTTG 60
AAAGACTGTG CTGTCCTTTA ACATAGGTTT TTAANGACTA GGATATTGAA TGTGAAACAT 120
CCGTTTTTCAT TGTTCACTTC TAAACCAAAA ATTATGTGTT GCCAAAACCA AACCCAGGTT 180
CATGAGTATG GTGCTCTATTA TAGTGAACAT GTACTTNGAG CTTATTGGTT TTATTCTGTT 240
ATTAGATNTT TCAGGGTGTA AACANGNNN 269

SEQ ID NO:5088

SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06076

SEQUENCE DESCRIPTION:

GATCGGCAGG GCAGGAATCT GAGCGCTGGC CCCGTGGTGA GGCCATGTTT TCATAATCAG 60
GCTCCAGCCA GAAAAATAAG AACACCCGCA ACAGGCTTCA GTATCAGGGC TGAAGACTGCT 120
GGATGANTAA ACTATTTATT AAAAACGGAA A 151

SEQ ID NO:5089

SEQUENCE LENGTH:267

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06077

SEQUENCE DESCRIPTION:

GATCTTGGCT TAATTTAATG TATTAATCTG TTTGTGCAAA CATAGTACCA CCATTTAAAA 60
ATGTTAGGGA GATGAGTTGC AGTTTTTATA ATAGATTTT TTTAAAGTTT GGTATTGTAA 120
ANCATTACA CCTCTGTCCC TCAAANTTGN TAATTACGGT TAAAGTGCAG TCATTGTGTTG 180
NTAGAATCTT GTTTNGTTGC TNCCATTATT GGGGTCCNCC NAAGGAATTG AGGAGAGGNC 240
CGAATAGAGC CCAATTCNTA TAANGAN 267

SEQ ID NO:5090

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06078

SEQUENCE DESCRIPTION:

GATCTCAGGG AAAAATTTTA ATCACTGTGT ATAATGATAC TGAACCTTGA TTAATAACAG 60

AAATTCAGGA TGTAAGCCA CAGAATGGGN TTTATTAATG TGGGATACCT CAGACTGTTT 120
 GTTTCTTTC TGGGNAGCAA AGTGTGTTCT ATAATGAATA AATATAGAGT GGTTTTAAA 180

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SEQ ID NO:5091
 SEQUENCE LENGTH:121
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06079

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SEQUENCE DESCRIPTION:
 GATCTTCCTG GNACCTGAG GGTGTCCTC CAGCAGGGGC TTCTNGACC CCTGTCTGAG 60
 GGGTCGCGTC TTAGTGGGCG GGATTCTTTT CCCTTTGAAT AAAAATGGAT TCAAACCCAA 120
 A 121

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SEQ ID NO:5092
 SEQUENCE LENGTH:378
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06080

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SEQUENCE DESCRIPTION:
 GATCTGTNTT GTTCCTGCAG CAAAAATCCT CTATGGACAT AGGAGGTGCT GTGTCCCATG 60
 CCCTCTTGCC CTGNCACTGT CCCATGGGCC CCCTTCTGCT CCCTGCCCCC TCCCTGCTAC 120
 TGCTGATGCA CTGTCTCTC CCGCAGCCC CTGGCTTCN AGCCTTCCTC CTGACCCCTT 180
 CCAACAGCCT TGGAATCCA GCTGCCACCA CCCTNTGGGT CGGACACTGG GACCCANTGG 240
 NCCAGTCTTG GNTGCTGNTT ACCCCTAGCC TTGATGNTG CCCAGGGGAC CCCNAGCCCN 300
 CTTGNGTTGN CNTGCAGCTT TAACAGAGTG AACCATGTGT ATTGTACAGG CGGGGGTTGT 360
 TAATTGNAGA AAACNNAN 378

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SEQ ID NO:5093
 SEQUENCE LENGTH:81
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06081

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SEQUENCE DESCRIPTION:
 GATCACACCA CTGCACTCCA ACCTGGACAA CAGAGCAATA TTGTGTCTCA AAAATAATA 60
 AATAAATAAA TAAATAGTAA A 81

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SEQ ID NO:5094
 SEQUENCE LENGTH:302
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06083

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SEQUENCE DESCRIPTION:
 GATCACCCGG AAGTTCAGGC TGAATTCTGA AGGCAAACCT GAGCAGACGG TCTCCATGGC 60
 AACCACGACA CAGCCAATNA CTCAGCATCT TCACGTACC TACAAGAAGG TGACCCCGTA 120
 AACCTAGAGC TTCTGGAGCC CTCGGGAGGG CCTGGCTACT GTGCCTCAAC GGTTCGGCTC 180

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CTCAACAGAC AGTCCCTGCG GCAGAAGTGG GTGTGGCCGT GAGCCTCTGC AGGCTCAAGA 240
 GTGTTGTCCA GATGTTTCTG TACTGGCATA GAAAAACCAA ATAAAAGGCC TTTNTTTT 300
 AA 302

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SEQ ID NO:5095
 SEQUENCE LENGTH:55
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06084
 SEQUENCE DESCRIPTION:
 GATCTGACTT CAGTTGTGCA GATNACAGCA TGATAAATGA GTCGGGACCA TCAAA 55

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SEQ ID NO:5096
 SEQUENCE LENGTH:145
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06085
 SEQUENCE DESCRIPTION:
 GATCAACAGA TGCTGGCAGA AATGGCTGTN TCCCTGGCCT TGAGAAGCAG ATNCAGCTCC 60
 CTGTCCCAG AGGCCTACAG TCATATGGTA CCNCCACAGN CTCGCTTGEN TCGCTACAG 120
 GAGCGGCGCT CANGGAAGCT TNCTN 145

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SEQ ID NO:5097
 SEQUENCE LENGTH:199
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06086
 SEQUENCE DESCRIPTION:
 GATCTCATGA GAATCACTC ACTATTATGA GAACAGCATG GGGAAAACCN CTCCCATAAT 60
 TCAATCACTN TCCTCTCTCC ACACGTGGGG ATTACAATTT GAGACAAAAC CTGGGTGGGG 120
 ACACAGAGCC AGACTATATC AGGGGGCTTA TGTTTATCCA NTTGTNATGG CCTCACTTNT 180
 TGNAAGACT GTNCTNNCN 199

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SEQ ID NO:5098
 SEQUENCE LENGTH:249
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06087
 SEQUENCE DESCRIPTION:
 GATCACAGAC TGTAGAGTTT TGAAGTCA CTTTTATTT NAATTATTN ACATATGCAA 60
 CATGAAGAAA TCGTGTAGGT GGGTTTTTT TTNAATAAC AAAATCACTG TTAAAGAAA 120
 CAGTGGCATA GACTCCTTCA CACATCACTG TGGCACCAGC AACTACTTCT TTATATTGN 180
 CTTTATATCC CAAATTAGAG TTTACAGGGN CAGTCTTCAT TTAATTGTAA ATAAANTATG 240
 ANTCTCAA 249

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SEQ ID NO:5099
SEQUENCE LENGTH:109
SEQUENCE TYPE:nucleic acid
5 TOPOLOGY:linear
CLONE:HUMGS06089
SEQUENCE DESCRIPTION:
GATCTGCAGT CCTGCCTCTG CCACAGTCTC TCTGTTGTCC CCACATCTAC CCAACTTCCT 60
10 GTACTGTTGC CCTTCTGATG TTAATAAAAG CAGCTGTTAC TCCCACAAA 109

SEQ ID NO:5100
SEQUENCE LENGTH:341
SEQUENCE TYPE:nucleic acid
15 TOPOLOGY:linear
CLONE:HUMGS06090
SEQUENCE DESCRIPTION:
GATCACGGAC GTGCAGCTCG CCATCTTCGN CAACATGCTG GGC GTGTCGC TCTTCTTGCT 60
20 TGTCGTTCTC TATCACTACG TGGCCGTCAA CAATCCCAAG AAGCAGGAAT GAAAGTGGCG 120
CTTTCTCCGN CCCAGGGTTC CAGGACATAG TCTGAGGCAA GATGGAGGGT ATGTGGGGCC 180
TTCACATTC ACTTCATCCC TTCTACCCAT CACANCATAC AAAGCANCTA CACCTGGATT 240
TTTCAAACA ACTTTATTT CCTCAGAGTC NGNNGNAATN CTATGGNNCA AGANGCTGNC 300
25 ACTGAATAGG GCCNAGTATA GGGGCTTGCT TTTCTACTCT N 341

SEQ ID NO:5101
SEQUENCE LENGTH:117
SEQUENCE TYPE:nucleic acid
30 TOPOLOGY:linear
CLONE:HUMGS06091
SEQUENCE DESCRIPTION:
GATCTGGTAC CGCAGTAGCG CCGCCGCCGC CGCCGNCGGA GCCTGTGCTC GTCCTGTCCC 60
35 CAGCCTNCTT GTGTCCCGTG AGGTTGTCAA TAAACCTGCC CTCGGGCTGC CGGCAAA 117

SEQ ID NO:5102
SEQUENCE LENGTH:151
SEQUENCE TYPE:nucleic acid
40 TOPOLOGY:linear
CLONE:HUMGS06092
SEQUENCE DESCRIPTION:
GATCCAAAAG GACTCATCTA AAACACAAGT TGGGTAGAGG AGATAGGTGA GTACTATTAT 60
45 ATTATGTTCA TGGAAAATNA GTTCATGGGC TTTCTCTAA TTTTATTTT AAAAAATAAT 120
GTAAATATTA AATAAAATTT TTTAAATGAA A 151

SEQ ID NO:5103
SEQUENCE LENGTH:86
SEQUENCE TYPE:nucleic acid
50 TOPOLOGY:linear

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CLONE:HUMGS06093

SEQUENCE DESCRIPTION:

5 GATCAGCTTT TAATATCTGT CAAATAAAAA TTGAAATTGA AGATGGTATA TAAGATTTC 60
 GNAAATAAAC TACTCTGAAT ACTAAA 86

SEQ ID NO:5104

SEQUENCE LENGTH:210

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06094

SEQUENCE DESCRIPTION:

15 GATCTAATCC GTNTCCACACA TGTCCCAGGG AATCCNAGGT CTGCCCTGAG CTCCTGTGT 60
 CCTTGGNAAA GTCGGTTAAT CTCTGGGCCT CACTGTCTC ATCGCTGAGC TTGGGGACTT 120
 GTAACANATG ATTTCTAAGT ATCTNCCAGC TTTGANTAGA GCATTGTNT TGGGTGGCCA 180
 GGCTTAANGT TTAAAGGCAT AANGAAAAANN 210

20 SEQ ID NO:5105

SEQUENCE LENGTH:242

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS06095

SEQUENCE DESCRIPTION:

30 GATCATATTG GTCATGTCTA TTGGTGTATT ATTCAGTAT CACCAATGTT TTCAGAAATA 60
 CAGTACTAAT TCATCATTAA ACTCTTTGAA GTTAATATTT TCCTGCCTTC TAACTTATAG 120
 ACTCAACTAT GTATCTGTAG TTTTGGGAA TGGGGTGGTG TTTTNNCTT TGTGTTGGGA 180
 AGTTATTGAG AAAACCTATA TAATANAATT NAANATTATA GTTTTAAAA AANNNCANNN 240
 NN 242

35 SEQ ID NO:5106

SEQUENCE LENGTH:219

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06097

SEQUENCE DESCRIPTION:

40 GATCTGCCCT TGGCCTCCCA AAGTGTCGGA ANNACAGGCA TGNGCCACTG AGCCTGANCC 60
 ACTTTAGCTA TTTTNAAAAA TAGGACCTAT TGTTTGGAT TACTATCTGA GAATTTCTAG 120
 GATTCACTCC TGGGTATAGG AGNTAAGAA ACGTTTAATT CATAACTTTT ATATTANCCA 180
 ATATAGTAAA AAAATAAAGC TCACACATAC ANAANCAAA 219

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SEQ ID NO:5107

SEQUENCE LENGTH:227

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS06098

SEQUENCE DESCRIPTION:

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5 GATCTATTTT TTGGGCTTTT AATATTCTGT TCCATTGACC TATNTCNCTT NTCTTTTACC 60
 AATACCGCAA CATCTTGGTT ACTGTAGCTT CACGGTAAGT CTTAAAACCT GGATATTGTC 120
 AGTCCTCCAA CTATGTTCTA CTCCTTCAAT ATTGTGTTGG TTATTCTGAG TCTTGNNGGG 180
 TCTCCATATA AATNGTAGAA TTAGAAAAAA AANNGNGGGG GGGANNN 227

10 SEQ ID NO:5108
 SEQUENCE LENGTH:135
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06100
 SEQUENCE DESCRIPTION:
 15 GATCAGTTTG GACTCTGTAA CTCATAGGTG CATTCTTTT TTCTTTGGTG TCTCACAAAT 60
 NACCCAATTG TTGAATAAAA CTATAAATAT GTTAATACCA GCTTTTCCA ATAAAATAAC 120
 AAATGTTACA TCAAA 135

20 SEQ ID NO:5109
 SEQUENCE LENGTH:167
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06101
 SEQUENCE DESCRIPTION:
 25 GATCTNATGG GTTAAAAAGN GCGGCATTTC CCTCCNCTTT CTCCCTCTCC TGCACCATGT 60
 TAAGATGTGC CTTGCTTCCC CTTGCCTTC GACCATGATT GTAAGTTTCC TGAGGCCTCC 120
 CCTGCCATTC AGAACTGTGA GTAAATTAAA TCTCTTNTCT TTATAAA 167

30 SEQ ID NO:5110
 SEQUENCE LENGTH:101
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06102
 SEQUENCE DESCRIPTION:
 35 GATCTTCTGC CACCATCAGG GNCAAACGGG TGCAGGAGGA AAGTCACTGA TGCCAGATG 60
 TTTGCNTCCT GCACAGCTAC AGGTCCTTAA NAAAAAGTNT N 101

40 SEQ ID NO:5111
 SEQUENCE LENGTH:172
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06103
 SEQUENCE DESCRIPTION:
 45 GATCTGTGGC TACTTTCACA CCACAACAGA GTACCATGGT TCTGACAGAG ACTAGGAGAC 60
 ACAGTCTAAA TGACTTCTGA CCTGGACCTT TACTGAAAAT CCTGCCAATC ATTCTGTTGG 120
 CAAGANTGAT GTATTACTTT TAGCAATAAG AAACAAGTAA CCTTTCAGAA AA 172

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 55 SEQ ID NO:5112

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06104

SEQUENCE DESCRIPTION:

GATCTCCAAA GCTGTCCTCT GCGTCCAGG AGTGCCTCTT ATGTGAGTCC TAATAAACTC 60
ATCTATTCAC CAAA 74

SEQ ID NO:5113

SEQUENCE LENGTH:134

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06105

SEQUENCE DESCRIPTION:

GATCTNTTCC CACCCATAAA AAGCCCAGAG AACAAAAAGT TGGCCCAGGA AATGCAATTN 60
GGAAGCTGAA GAAGATTATA GTATTTNTNG CAGTCAAGAT TTGGAAAGTT ACCNACTAAG 120
AAGCTACAAT ATNN 134

SEQ ID NO:5114

SEQUENCE LENGTH:186

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06107

SEQUENCE DESCRIPTION:

GATCTTGAAA TNAACTAAG ATTTTCCTGG GGAAATGTTC AGATACAGTT TTGTGAACTG 60
TAAATCAAAA TACCTTTTNC TACAGTTTAT CTTTATNTC CTGCAAATTT AGGAACATAT 120
TTCCTCGTTT NCACATTGAA TCTTAAGTTT AAGCNCTTCA TTTGGNATTT NGGCAATATA 180
TGNGAN 186

SEQ ID NO:5115

SEQUENCE LENGTH:275

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06108

SEQUENCE DESCRIPTION:

GATCTTTNTG ACTAGAGTTA GTGTCCTAGG AAAACCAGAA CTCAGAACTT GCCTCCATGG 60
TTGAGTAACA AGCTGTACAA GAACCCCTTT TATCCCTGGA AGAGGCTGTG TATGAAACCA 120
ATGCCCAGGG TTTGAAGGGT GTTAGCATCC ATTNCAGGGG AGTGTGGATT GGCTGGCTCT 180
CTGGTAGCAT TTTGTCCTNA CACACCCATC TACTATGTCC AACCGGTCTG TCTGCTTCCC 240
TCACCCCTTG CCAATAAAG GNCAAGNNCT TCAAA 275

SEQ ID NO:5116

SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06109

SEQUENCE DESCRIPTION:

5 GATCGAGTGG TCTGTGTTCC TATTGCTGGT GGGGTGATAG GGTGGGCTAA AAACCATGCA 60
CTCTGGAATN TTTTGTATTT TCTCCAGTA AAGCTTTTCT TCTCCGAAA AAAAAAAGA 120
AA 122

SEQ ID NO:5117

10 SEQUENCE LENGTH:94

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06110

SEQUENCE DESCRIPTION:

15 GATCACAAC TACAGCCTGC AGGCCAAATC CAGCCCACAG CCTGTNTTGT TAAATAAAGC 60
TTTGTGGAN CAAAGCCACA CCCCTTAATC TAAA 94

SEQ ID NO:5118

20 SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06111

SEQUENCE DESCRIPTION:

25 GATCTGAATC CAGNTCATTG GAGGGAACCC CCAAGGTTCT CTGGTTGTGG CCTCTTGAAT 60
AAACCTCTCA CATTGGAAA 80

SEQ ID NO:5119

30 SEQUENCE LENGTH:274

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06112

SEQUENCE DESCRIPTION:

35 GATCTATTAT CTAGCTGCAA AGCCTGGCTT TGNTTGNAA TTTTGTA AAA ATTTCATGGC 60
ACCCAAGGTT TCTGNTTCTG ACCCAGCAGT GGTCTGAAG AGAGCTGATG GCAAGTNTTG 120
TAGTCATTTT GATTTTAATT GAAGGGTGAG CATAACCTTG TGAACCAGCA CTAGCTTGTT 180
CCAAGCTGGA ATTTATCTAA TCTATTTTGG TGTTTAAAA AGCTGTACCT ACCAAATAAA 240
40 TAAATAGTTT ATAAATGTA TTACTTAAGG TAAA 274

SEQ ID NO:5120

45 SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06113

SEQUENCE DESCRIPTION:

50 GATCTTTGAA GATATCCTCA ACGTGAGGCT CTNCTGCCAT GAAGGTGAAG ATTAAGTGCT 60
GGAACGGCGT GGCCACTTGG CTCTGGGTGG CCAACGATGA GAACTGTGGC ATCTGCAGGA 120
TGGCATTAA CGGATGCTGC CCTGACTGCA AGGTGCCCCG CGACGACTGC CCGCTGGTGT 180

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GGGGCCAGNG NNCCCACTGC TTCCACATGC ATTGCATCCT CAAGTGGCTG CACGNACANC 240
 AGGNGCAGCA GCACTGNCCC ATGGTGCCGN CAGGAATGGA AGTTCAAGGA GTGAGGCCCG 300
 ACCTNGNNTC TAGNTGGGAG GGGNATNCTG AAGACTTCTT TNCTTNATTN 350

SEQ ID NO:5121

SEQUENCE LENGTH:360

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06114

SEQUENCE DESCRIPTION:

GATCTTATTC AGTCTGCTGN TTTGTATAGT GTGATGACCC TAGTAAGCAC ATATTTGGTA 60
 GCCTTTGTCAT ACAAGANTGT GAAATTTGTT CTCAAGCACA AAGTAGCACA GNAGNGGGAA 120
 GATGCTGTTT CCAAGAAGT GACTCGAAAA CTTTCTGAAG CTGATAATAG AAAGATGTCT 180
 CGGAAGGAGA AAGATGAAAG ATTCTTGTGG AAGAAGAATG AAGTNNCINN ATTATGAAGC 240
 TACANCANNT TCCATCTTCT ATAACAACAC TCNGTTCCTG GTCGTNGTCA TTGTTGCTTC 300
 CTTCTTCATA TTGGAAGAAT TTCAACCCCA CAGTGAACCA CANATTGTGC CATAAGTTGN 360

SEQ ID NO:5122

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06115

SEQUENCE DESCRIPTION:

GATCTGGTCA CACCTAAAGT CATTAAAAATC ACTGAAATGT TTAGATACAC AGCCCAATAA 60
 ATTCTCTTTA TAAACACAA GCAGTAAA 88

SEQ ID NO:5123

SEQUENCE LENGTH:177

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06116

SEQUENCE DESCRIPTION:

GATCAGGCCA CATAAGGAAC AGGGGAATTC CAGGGGTGGG ACACAGCTNG GGGAGTCCAG 60
 ACCAGGGCAG GGAAGGAGA CTCACAAGCC AAACAGAGCT GCTTTGGGGA AAGTTCTTAT 120
 CAGCTGGTGC TGCTTCCTGA GCCATATGCC CATTCTCAA GCTGTACCN NNNNNNN 177

SEQ ID NO:5124

SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06117

SEQUENCE DESCRIPTION:

GATCTGGAC CTCCAGCCT CCAGAACTGT GAGAAATAAA TNTGTTTTGT TTCAGCTAAA 60

SEQ ID NO:5125

SEQUENCE LENGTH:54
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06118
 SEQUENCE DESCRIPTION:
 GATCTGGCTG ACTCACACGC GACTGGAGAA TAAACAAACA GCAACATAAG GAAA 54

SEQ ID NO:5126
 SEQUENCE LENGTH:316
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06119
 SEQUENCE DESCRIPTION:
 GATCTCCCAT GGGTCACCCA GGTCCATGCT CTCCGCATGG TATGCGTGGA CCTCCTCCAC 60
 TGATGCCCCC CCATGGATAC ACTGGCCCTC CACGACCCCC ACCCTATGGC TACCAGCGGG 120
 GGCCTCTCCC TNCACCCAGA CCCACTCCCC GGCCACCAGT TCCCCNTGA GGCCCACTTN 180
 GAGGCCCTCT NCCTCAGTAA ATTCACATTT TNCTTCCTNC TGTTACATTT TNCNAATATN 240
 TTTTCTATTC CTTGGACCAA TCAGAGATGC TGTAGCTTNC TTGGGGCAAA GGGTACTAAA 300
 TCNCNTTTNA GCACNN 316

SEQ ID NO:5127
 SEQUENCE LENGTH:222
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06122
 SEQUENCE DESCRIPTION:
 GATCCTGTTC CTGTACCAT TGCTCTCGAT TCACTCAGCT GGCTGCTACT TCGCCTTCCC 60
 TGCACCACAC TCTGCCAGGT CCTGCATGCT GTGAGCCATC AGGACTCTTG TCCTGGTGAG 120
 ACCCCTCCTT CATTGTTTCC CCTCATACAT CTCCCTCTGC CAAGGAGTGT GCCCCTTTTC 180
 CTTTCTACCC TAGAATAAAC ATCTGGGTTC TCCAGTCAGA AA 222

SEQ ID NO:5128
 SEQUENCE LENGTH:130
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06123
 SEQUENCE DESCRIPTION:
 GATCGACTGG AACAAAGTGA CCGCTGNGTA AAATACTGC CTTGCCACTC ACTGTTGTAT 60
 ACATTTCTTA TTTACGATTT TCATTTGTTA TATATATATA TAAANATAACN GTATANANAT 120
 GCAACATANN 130

SEQ ID NO:5129
 SEQUENCE LENGTH:160
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS06125

SEQUENCE DESCRIPTION:

5 GATCTTAGAG CTA AAAAGGA CTGTAAAAAT TACCCAGAAC AGCGTCCTCA GACTTAACCT 60
 TCTGCAAGTT ATGTCTGTAT ATAAGANGAT TCTAATTGCT AACTGTTTAT ACTTTNCTGN 120
 ATAAAAATAGT TGTTTCTAAT TAAAANGTAG CCAAGCTAAA 160

SEQ ID NO:5130

10 SEQUENCE LENGTH:349

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06126

SEQUENCE DESCRIPTION:

15 GATCTTCGTT CAGGGCATCA TCTGGGACAT CAACAGCTTT NACCAGTGGG GAGTGGAGCT 60
 GGGAAAGCAG CTGGCTAAGA AAATAGAGCC TGAGCTTGAT GGCAGTGCTC AAGTNACCTC 120
 TCACGACGCT TCTACCAATG GGCTCATCAA CTTTCATCAAG CAGCAGCGCG AGGCCAGAGT 180
 CCAATAAACT CGTGCTCATC TGCAGCCTCC TCTGTNACTC CCCTTTCTNT TCTCGTCCCT 240
 20 NCTNCCCGGA GCCGGCACTG CATGTTCTCTG GACAACACCC AGAGCACCCCT NTNGTTGTGG 300
 GNTTTTGNNC NNCGAGCCCT TTAGCNGGGA ANGNCTTGGT CTTCNCCAN 349

SEQ ID NO:5131

25 SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06127

SEQUENCE DESCRIPTION:

30 GATCCTCAAG GACCTGTAAT TTTTGGTAT TTAAAATTAA AATAACATTA TTTTATTTT 60
 GANTTTTTTT CAAACAGTAA GAATAATATA TCAGCAGCAT GTATCTGCCA ATCATATGTA 120
 ATAAATTNTT TATTTTGCCA AAACCAAA 148

SEQ ID NO:5132

35 SEQUENCE LENGTH:101

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06128

SEQUENCE DESCRIPTION:

40 GATCTAATAC AAGANCTAGC AAAGCAAAAG TTTTGCAAG TGACAGCATA AAGACGGANC 60
 ACAACAAATC CTTCTGNAG TGAATTAGGA AACTCCANGG N 101

SEQ ID NO:5133

45 SEQUENCE LENGTH:347

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06129

SEQUENCE DESCRIPTION:

50 GATCCTCATT CTTTCCCCG TACAGTGGAA AACATCTTN ATGTTTCCTT CATTATACGG 60

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GATGGTTTTN CAAGAATAAG ACTTGACCAA GACCGACTGC CAGTAATAGA GCCTGTNAGT 120
 ATTAATGAAG AAAATNAGGG ATTTGAACAT AACACACAAG TTAGAAATCA AGGAATTATA 180
 GCTTTGAGTT ACCGTGACTG GGNGGNGATT GTGAAGACCT TTTGAGATT CAGAGCCTGT 240
 5 GATTACTCCA AGTCAGAGGC AGCAGNNGNC AAGTNCCTTG NTTGCTAGCT GAAAGGACTT 300
 AAATGGNTAG TGAAGGTCCA AAACCGGGNA AGCGGCATNG TGTGGN 347

SEQ ID NO:5134

SEQUENCE LENGTH:72

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06130

SEQUENCE DESCRIPTION:

15 GATCACACTG CAGTTTCCAT GTTAGCACTG TGGATGGGTT TTNAATCAAT AAAAAGTGGG 60
 GGTTCCTTCA AA 72

SEQ ID NO:5135

SEQUENCE LENGTH:203

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06131

SEQUENCE DESCRIPTION:

25 GATCTGTAAA ATAAAACTC AGCTGGGTCC AGATATCAGG TGTTCTAAAT CTAAGAATGT 60
 AAGAACAATC TTAATAGAAA TATGTNTTTA ATAAGTGGCT AATATCTACA AATAGTACCT 120
 TTGCTAAATG ANTTCTTTTT NATGACTATN TTGTTTTTNA GNAATTGGGT GAAAANNCAA 180
 CTGANATGAG ATTATTTATN ATN 203

SEQ ID NO:5136

SEQUENCE LENGTH:129

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06133

SEQUENCE DESCRIPTION:

35 GATCTTAGAT TTATGAAGC ACAGTATGCA GGTAGGCCTA ATGGGGGAAG ATGGTAATAT 60
 AAAAGCAAGA AGTATTTTTT TTTTGAAT GCCTGAANGC TGTNCTGNGG NTGCCCTCCC 120
 40 CTTNCCTTN 129

SEQ ID NO:5137

SEQUENCE LENGTH:270

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06136

SEQUENCE DESCRIPTION:

50 GATCACCTGA GGTCTGGGAGT TCGAGACCAG CCTGACCAAC ATGGAGAAAC CCCATTCTA 60
 CTAATAATAC AAAATTAGTC AGGCATGGTG GCGCATGCNT GTAATCCCAG CTAATTGGGA 120
 GGCTGAGGCA GAAGAATCGC TTGAACTGG GAGGCGGAGG TTGCGGTGAG CCGAGANCAT 180

GCCATTGCAC TCCAGCCTGG GCAGCAAGAG TGAAGCTCCA TCTAAAAATA AATAANTAAA 240
TAAATAANTA ANCCCTCANA NNNAAAAATN 270

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SEQ ID NO:5138

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS06137

SEQUENCE DESCRIPTION:

GATCTGTAGG GGAGGGAGTT CAAATAAAGC TTTATTTTTT TCATTTTCAA A 51

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SEQ ID NO:5139

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06138

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SEQUENCE DESCRIPTION:

GATCTGGGCT CCCTGACTTT CTGAAGCTAG AAAAAGGTTG TGTCTCCCAA CCACCTTTCC 60
ATCCCCAGCC CCTCTCATCC CTGGAGCACT CTGCCGCTCA AGAGCTGGTT TGTTAATTAT 120
TGTTAGACTT TGCCATTGTN TTCTTTTGTG CCTGAAGCAT TTTGAAAATA AAGTTTACTT 180
AAGTTATAAA 190

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SEQ ID NO:5140

SEQUENCE LENGTH:199

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS06139

SEQUENCE DESCRIPTION:

GATCGGGAGG ACCTGTATGC CTGACCGTTT CCCTGCCTCC TGCTTCAGCC TCCCAGAGGCC 60
GAAGTCTCAG CCCCTCCAGA CAGGCCGCTG ACATTCAGCA GTTTGGCCTC TTTCCCTCTG 120
TCTGTGCTTG TGTGTTGAC CTCCTGATGG CTTGTCATCN TGAATAAAAT ATANTAATAA 180
ATTTNGTATA AATAGGAAA 199

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SEQ ID NO:5141

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SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06141

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SEQUENCE DESCRIPTION:

GATCCAACCA CCTCAGCCTC CCAAAATGCT GGGATTATAG GCGTGAGCAC TTGCACCTGG 60
CAAAAAAATT TTTTAAAAA AAGGAGAAAG CAGTTTAACC ACAACAGTG AAACAGAGCT 120
GGCAGACGCC TGAACCTCCA TGAACCATG CAGCTGTACC CTAGGGCTCC TCCCAGGAAA 180
AGAGAGATGT CAACGTGGCC CAAGGTGTCC TGAAGCACTG GGATTGGNTT ANCTCGAGCG 240
NTGGCCTTCC CAGCCCTNCG TGCTGCAGAG CCTCTGCTCG CTAGGCTNCC TTCATNCTNA 300
CTCTGTGTGC TN 312

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SEQ ID NO:5142

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

5 TOPOLOGY:linear

CLONE:HUMGS06142

SEQUENCE DESCRIPTION:

10 GATCTAAGAC AGCAAAGAAG TGTGCAAGGA GGGCCCTGTT AGCTCCCACT GTCCTGGTTT 60
CTCCTCCTGG AGTCTAATTT CCTTGGCCCT CTGAGCCTTT TGAGTCTGGG CCCTGGTCCA 120
ATGCTGCTGT TGTCTGAGGA ATGGTTTGGT GAGAACAGAT GTTAGAACTT GTTTGTTGAT 180
TCTTGTCTGG CTAATAAATC ANCACCAACT GNCTTCTCCN ACAGGGAAA 229

SEQ ID NO:5143

15 SEQUENCE LENGTH:332

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06144

20 SEQUENCE DESCRIPTION:

GATCTAAGAT TATTTCCATG AGAAATGTTG AATTTATGAA GAATAGATTT TAAGGCTTTG 60
AAAATGGTTA ATTTCTCAA AACATCAATG TCCAAACATC TACCTTTTTT CATAGGNGTA 120
GACACTAGCA AGCTGGNCAA ACTATCACAA AAGTATTTGT CACACATAAC CTNTGGTCTG 180
TTGCTGATTA NTACAGTACT TTTTCTTTGT GTGATTCTNA ACATTATAGC ACAAGTATTA 240
25 TCTCAGTGGG TTATCCGGA TAACATCTGA AAGNGGGGTT CATCTNTGGT NGNGTTTGCT 300
CNNTAAACTA GNGTNTCTCC TGGTCCCAAT GN 332

SEQ ID NO:5144

30 SEQUENCE LENGTH:275

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06145

35 SEQUENCE DESCRIPTION:

GATCACATCA CGGAATATTC TTTGCCTTTC CACTTTCAG GAAATCTCTC GGACTGGGCT 60
AGCCTCCTTG TGTGTGATGA AAGATGGGCT ATATTTGAGA ACANAGTGCT GTGTTGTCAT 120
GATTTGCCTG GACTCCAGG GCGTCTCTTA CCCAACTTGA TAACGATGCT GTTCATTAGC 180
AGCCTGTGTT AACTGATAAC CAAGAGCGGT AATGTGATAC TCATAAGCAA TTTTCTGTGT 240
40 GTAGGATAAA ATANNCCATC TTGTATNATT NCAAA 275

SEQ ID NO:5145

SEQUENCE LENGTH:92

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06146

SEQUENCE DESCRIPTION:

GATCTCTTTT CAAGTTCAT CATTCTTTCT TCTGTAATGT TCAATCTCTC TTAAGAAAAGT 60
50 CCAAATAAAT TTTTCATTTC AGAGAGTGGA AA 92

55

EP 0 679 716 A1

SEQ ID NO:5146

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06148

SEQUENCE DESCRIPTION:

GATCTGGGCA TTAAGTCAGT GGCTTTGCAT AGCTTTCACA AGTCTCCTAG ACACTCCCCA 60
CGGGAACTC AAGGAGGTGG TGAATTTTA ATCAGCAATA TTGCCTGTGC TTCTCTTCTT 120
TATTGCACTA GGAATNCCTT GCATTCCCTA CTTGCACTGT TACTCTTAAT NTTAAAGACC 180
CAACTTGCCA AAATNTTGG CTGCGTACTC CACTGGTCTG TCTTTGGATA NTAGGNATTC 240
AATTTGGCAA AACAAAGTGT AATGTCAGAC TTTGCTGCAT NTTACACATG TGCTGATGNT 300
NACAATGGTG NCGAACATNA GTN 323

SEQ ID NO:5147

SEQUENCE LENGTH:347

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06150

SEQUENCE DESCRIPTION:

GATCTTTTGA GTGGAGGTGG GTAGAGAGAG CAAGNAGGGC AGGACACTTA GCAGGCACTG 60
AGCAAGCAGG CCCCACCTG CCCTTAGTGA TGTTGGAGT CGTTTACCC TCTTCTATTG 120
AATTGCCCTG GGAITTCCTT CTCCCTTCC CTGCCACCC TGTCCCCTAC AATTGTGCT 180
TCTNAGTTGA GGAGCCTTCA CCTCTGTTGC TGAGGAAATG GTAGAATGCT GCCTATCACC 240
TNCAGCACAA TCCCAGCGAA AAAGGGTGTG AAGNACCCAC CATGTTCTTG GAGCANTCAA 300
GGGTNCTAA ATNNNNCGGC TGGGACCANT NANATAGTGA GTNNNNN 347

SEQ ID NO:5148

SEQUENCE LENGTH:388

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06151

SEQUENCE DESCRIPTION:

GATCTGCCAT ACCACTGTGA CTGCATTGAA AGATGTCCCT TTCTCTCTCT GCCAGTCGGT 60
CGGTGTGGGA CAAAACACAG ATATACAGCA GATAGCGGCC AAAAATTCA CAGACACCTC 120
TCTCATGTAC CCAGAGGACA CTGTAAATC TGGACCAAGT ACGAATACAC AGAGTGGTCT 180
TTTCAAACT CCTCCCCCTA CTCCACCGGA CCTCAACCAG GACTTCAGTG GATTTCAGCT 240
TCTTAGTGGA TGTGCACTC AAACGGGGCT GCAGAGATGG AGGCTTNAGG GNANANCTTT 300
ACAGNTTAAC CCNATTTTCA AGCANAAACA GTTCTCANGA AGTGTCATGA TTGNCCGGGG 360
TAGAAGGGAA AGAGATTGAA TTTGCTTN 388

SEQ ID NO:5149

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06152

SEQUENCE DESCRIPTION:

5 GATCTATAAT GGGATACATT GTCATCCTCT AGCAACTCCT ATATAGAAAG TTTTAACTGA 60
 ATATGTTACA TATANGAATT AAATTCCTCT CAAATAATTC TTAACCTCAG TNATGAGCCT 120
 AAATTTACTC TGCTTGGCTC TCTACACATG GCATTTCAGG GTATAAGATG TAGCATTNA 180
 ATGTGTAAGA TATATGTACN NNNCATATGT GTTGCTATCN TCATCATTAA CATCCTTCTT 240
 TNCTATTGCT TGGCTGTAAT TTTTGTAAG ATAATTATA TTGTNTNNNT GTATGTGTGT 300
 10 TTGTAGTN 308

SEQ ID NO:5150

SEQUENCE LENGTH:316

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS06153

SEQUENCE DESCRIPTION:

20 GATCTGTCCT GTGAGGCATT TAGGGGCTTT CAGGAATTTA GTAAAAGGTG GAGTATGCCT 60
 TTCCAGTATC TTCCATCTTC CTTTGATAC TTGTCCTTCC TCCCATTTCC TCCCTTTGGC 120
 CCGAGGTAGG AGGATGGAGG GAGGCTGCTA CTCTACCACT TCCTGTGTGC CTCTACTGTG 180
 GCCTCAACCC TGGCAATTAT AGCTACTCCC ATCCCTTACC TGGGCATGTG TGAGCCCTTC 240
 TCACTGGATT TTATACCCTT GTGTCTGTGT ACATAAATAT ATATACATAT ATATATACAT 300
 25 AAAANCTTTG TACAAA 316

SEQ ID NO:5151

SEQUENCE LENGTH:66

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS06154

SEQUENCE DESCRIPTION:

35 GATCAGGCAG GAGAAAACT TTAGATGGGA GTCTTGTCAT CAAAAATAAA TACAGTTGCA 60
 TGGAAA 66

SEQ ID NO:5152

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS06155

SEQUENCE DESCRIPTION:

45 GATCAGGACA AGAGCGANGC ACCAGGGGAG CTCTCTCCA AAGGCCTTGT CGCCCCAGAC 60
 CTAACCTCGCT CCCCTCAAC CTGCCTGAGG AAGAACTCT CAGGATTGCA CGGATATTTT 120
 CTTCTCAGTA CTCCCAGAAA GACTGACGCA GCCTGAGGGG CTGGGGTTGA AGGAGACACC 180
 TGCCCANCN NCGTCAGNTT TGTCCAGCTT GCAGGAGGCA CCAGGTCTGG CTCCTTCAGG 240
 GCTGTCACAG TCCTGAAACC ACCACTTGCC TAGGTCACGG ATGCCTNAAG AGACCCGGTN 300
 50 AGGCTAGATN N 311

SEQ ID NO:5153

55

EP 0 679 716 A1

SEQUENCE LENGTH:111
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06156
SEQUENCE DESCRIPTION:
GATCTAGGGC TGGCCCCTAG TGAGTGGGCT CGAGGGAGGG TTNCCTGGGA ACCCCAGGAA 60
TTGACCCTGA GTTTTAAATT CGAAAAATAA GTGGGGCTGG GACACACGAA A 111

SEQ ID NO:5154
SEQUENCE LENGTH:274
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06157
SEQUENCE DESCRIPTION:
GATCTCCTNN TCCAGTGCTG CACACTCCTG TNITTGGAAC TTAAATAGCG TTGCAACGAA 60
ATCCTATATC CAGTTTCCTG TAATTTANTT GAAGAAAAAT ACATCCAAAT AAAGACTTTA 120
TTATTAACAG ACCAGATAGC ATCAGAAATC ATGTGACTGT TNTGCTTATC AGANTATGTC 180
TNAACTNNTT AGGGCAAAGT TAACACTGAA AGTTCTAGCT TAAGTGTTGA NCCTNTNGTG 240
GGAAAAANAA TTCCACTTGT GAAACNTCAG GCTN 274

SEQ ID NO:5155
SEQUENCE LENGTH:155
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06158
SEQUENCE DESCRIPTION:
GATCACTCTG GTGCGGGTGT TTGGTTTTGT TTTAAATAG CTTTGCACTG AAAGCTTTCA 60
TGACCATACA AATNATCTTT TTTCTTCCTA TTTCTTTGTA GAGGTTTTTT TCCTCCTTGT 120
CTTAAGGTCA TAAAAATATT GTTATGTGGG ACAA 155

SEQ ID NO:5156
SEQUENCE LENGTH:369
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06159
SEQUENCE DESCRIPTION:
GATCTGTGGC TTGCTCCAC CATCCCTAAC CAACCTCTCA TCACAGCTTT NTGTGTGGGC 60
TGAGTGCTGG CCTTAACCT AGGCGTGGAA GAGAAAAATG GAGGTGTTT AGATACTCAT 120
CAGGACCTCA CAGGAGCTGA GACTTATCAG CCAGAAATNG TTCTTCGGAC AGTCGTACAC 180
ATCTTACAGA AAACCCTCCT TNGTAGAGTT GGNTTGTGGT ATGTGTTTGA TGCTATAAAG 240
CTCATTTTTA ATGGTGTACA CCTGNTTCTA GGGNCGATT CGTTTTGGAA GNGGGTAANG 300
NTGCNTTAAC CAGGTAACTN ATCCTTGGGN TTTAAGGTGN AAAAAATNTT CTNGNCAAAG 360
GGAANCCNN 369

SEQ ID NO:5157

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06160

SEQUENCE DESCRIPTION:

GATCAAAATC AAAAGAACCG TGTAGATATA CTTNATTGTA TAAGTAGAAA ATTACTTAAT 60
TNCATACTAG AAATGGATGG ATGCTGCAAG TTGAAATGGA CTGTCCATTG ACGGTCCTAA 120
TGTGGTAGCA GAAAAANATG GTGTCTTAAG TNCTTAGNGT TTGATGTCAT TAACAGTTTC 180
GTAAAACTCT ACAGTGTAGN AAGTTTTTTC AATACTAAAC TGTGCGTTGT NCATAGTTCT 240
AATGCATTGT NTTNGCCNCC CGGTACTTTC TNTNAANGN 279

SEQ ID NO:5158

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06161

SEQUENCE DESCRIPTION:

GATCTCAAGT GAGATAGCAG AGCAAGATGC CAAAAGACCA TAAATAGAGT AAGGTTTCTA 60
TAGATGTNAG ACAGATTGGA GAGAGCATTT ACTCTGTCTC CCTGTGGATG AAAGTGTCTG 120
TGAAATGGTT CCAATTTTNA GGAATCTGCT TACCCNCTTC ATTATTGAC AGCTTTCCTT 180
GGTGACCCAA ACCTTGTAGC CTAAGCCATT TGTCTTTTTC TCAGTGGAGG GAGTGTATGG 240
ACCTGGCCCC ATGGCTTTGC ATGTTAGAGA CCTGGCNGAC TAAAGTCNCN GGGTGTTTGT 300
TTGCTCACAT TTGCTGAGTG ACAGNTATGG TGNCCNN 337

SEQ ID NO:5159

SEQUENCE LENGTH:378

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06163

SEQUENCE DESCRIPTION:

GATCTACAAC CCCTTGGAGC AGTGCTGTNA CAATNACGCC ATCGTGTCCC TNAGCGAGAC 60
CCGCCAATGT GGTCCTCCCT GCACCTTCTG GCCCTGCTTT NAGCTCTGCT GTCTTNATTC 120
CTTTNGCCTC ACAAACGATT TTATTGTGAA GCTGAAGGTT CAGGGTGTGA ATTCCCAGTG 180
CCACTCATCT CCCATCTCCA GTAAATGTGA AAGCAGAAGA CGTTTTCCCT GAGAAGACAT 240
AGAAAGAAAA TCAACTTTTC ACTAAGGCAT CTNAGAAACA TAGGCTAAGG TAATATGTGT 300
ACCAGTAGAG AAGCCTGAGG AATTACAAA ATGNTGCAGC TCCAAGCCAT TTGTATGGCC 360
CATGTGGGAG ACTGNTGN 378

SEQ ID NO:5160

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06164

SEQUENCE DESCRIPTION:

GATCAGCCCC ACCCTGGCCT AGACCAGCAG ACAGAGCCAG GAGAGGCTCA GCTGCATTCC 60

GCAGCCCCCA CCCCCAAGGT TCTCCAACAT CACAGCCCAG CCCACCCACT GGGTAATAAA 120
AGTGGTTTGT GGAAA 135

5 SEQ ID NO:5161
SEQUENCE LENGTH:350
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS06165
SEQUENCE DESCRIPTION:
GATCTCGTAA GATTAAATGT AGCATTCTAT ACTCCCTACA TGCACAGTAN GATTGTGTTA 60
ATGAATGGAA GGAAAGACTA AATACAATGT CAAATGTNAC TATTAATTGG ACAAGAAAAT 120
CCAAGTAGCA AATGACCATT ATGTGTAAGA CTTACTCTAA AAAGACCNIT TTAATAGCT 180
15 CATATATTAA TNTNGTTTAA AACCTGCTAT TTTCCAAAAC TGCAAACTA GGGCTATAAA 240
AATCTAAGTT AAAAAATCAG CTNATCCTCA TTGGTATAGT GGTNTGGNNA AAAAAATCCA 300
GTTTTAAACC NGNNTNNATT GANAGGNTGT CTCCATGCCT NCCATTGGGN 350

20 SEQ ID NO:5162
SEQUENCE LENGTH:57
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06166
25 SEQUENCE DESCRIPTION:
GATCACTTTT ATGTAAAAAT TATAATTAA TTAATAAAAA ATTTCTTAAG AAGTAAA 57

30 SEQ ID NO:5163
SEQUENCE LENGTH:203
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06167
SEQUENCE DESCRIPTION:
35 GATCAGGCCT TGGCCTCTNA GCCCTGCCTG CTCTGGGCCA TGCAGAGGAA GGACAGAGNG 60
TGGGCGCAGG GCACCAACTC AGGGACATCC CCTCTCCTGG GCGACGTCAG TGGACCTTCC 120
TGCACCCCCA GCCTGGAATG TAAATNAGCT GTGTGGTGCC CGCGTNGCTG GAAGGAAATA 180
GACCCTTTTN TAGCTCCCTG AAA 203

40 SEQ ID NO:5164
SEQUENCE LENGTH:274
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS06168
SEQUENCE DESCRIPTION:
GATCCTCTGT GATACCAAAA TCCATGGATG CTAAAGTCCC TTTTAAAAA TGGCATAGTA 60
TTTGATATA ACCCAAACAC ACCCTCCTGT GTATTTTAAA TCATCTGTAG ATTACTTATA 120
50 ATACATAATG TAATGTAAAT GCTATAAAAN TAGTTATTAG ACTGTATTTA GGAATAATG 180
ACAAGANGAA AAAGTCTGTA CATGTTCACT ACAGAGGCAA CCTTTGTAGG TCTAAATANN 240

55

TTTTTAATAC AGNANTNNGG ATGTNAGNNN NGGN

274

SEQ ID NO:5165

SEQUENCE LENGTH:343

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06169

SEQUENCE DESCRIPTION:

GATCTCTTTT TATTTAAATG TGAATTTCAA CTTTGGACAA TCAAAGAAAA GACTTTTGTT 60
 GAAATAGCTT TACTGTTTCT CAAGTGTTTT GGAGAAAAAA ATCAACCCTG CAATCACTTT 120
 TTGGAATTGT CTTGATTTT CGGCAGTTCA AGCTATATCG AATATAGTTC TGTGTAGAGA 180
 ATGTCACGTG AGTTTTGAGT GTATACATGT GTGGGTGCTG ATAATNGTGT ATGTCCTTTG 240
 GGGGTGGAAG NGGATAACAA TTCAAGCTGA GAAANGTATT CTCAAAGATG CATTTTATA 300
 ANTNTNATTA ANCAATNTTG TNANAGNNNG ANGNGTGGGN NTN 343

SEQ ID NO:5166

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06170

SEQUENCE DESCRIPTION:

GATCATACGA GGCATGTAAT ACCAAGAATT GTTACTTTAC AATGTTCCCT TAAGCAAAAT 60
 TGAATTTCCCT TTGAACTTT AGTNATGCAC AGACTNATAA TAAACCCTCT AAANCCTGCC 120
 CAAA 124

SEQ ID NO:5167

SEQUENCE LENGTH:367

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06171

SEQUENCE DESCRIPTION:

GATCTTGGAC CCAGTCTGGC CCGTGCCAG CATGGGGCTG CTTCTCCTCC ACAGCTCCTT 60
 CCCAGAGGGC TGGGGCCTCA GCCTCCCTGC CACGTCCACT CTGGGCTGGC CTGGAACATA 120
 CTACTATGTT GACAGTAACA ATAAAGCTCC TCAGGGACCA CCGTACAGGC CCGCAGCCCC 180
 ACTGNCTGCT GTTGAAGAA AGCTGTGGAA AGAAAGCAGG GGGNCCCTGC CCCAGGCCAA 240
 GGCCCTGCCC TTGCCACACA CGGTACACAN ATGCAGCCTC TCTNTCTCTN TGTGTCCACT 300
 TGTGAAAATA ANCTGCAGGN CTGGNTNGGA CAACAAAGGN AGNNGNACAG TGTCTNGGNN 360
 GGCANN 367

SEQ ID NO:5168

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06172

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

5 GATCAGTTCA GTATATTGCA CTAATTATTT TAGGTATTTT CATTATATGA AAGCTACCAT 60
 GTGTCAGAGA TGATTTAATC TATTTAAGTG TTGGACTGCT AGGAGAACTT GTACATTAT 120
 GATAATGCAG AATTAGGAAA ACGGTTCCACC AGTGTTTAGT TTTATATTGA GGTGCTCAGG 180
 TTGGTATAAA GTGGTATAAA AAGCAAA 207

10 SEQ ID NO:5169
 SEQUENCE LENGTH:116
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06173
 SEQUENCE DESCRIPTION:
 15 GATCATGCCC TTTGTAGTAN CACAAATGGN GCTGGAGACC ATTATATTAA GCAAACATAAC 60
 ACAGTNCCAG ANAACCAAT ACAGTATGTT CTCACTTATA AATGGGAACT AAAGNN 116

20 SEQ ID NO:5170
 SEQUENCE LENGTH:92
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06174
 SEQUENCE DESCRIPTION:
 25 GATCTGCTAG GGATTGTCAA AATAATCTCC TTGAGGCATC TTTATTTTAA AAATGAGATT 60
 AAAGTATGTG ATTTGCTTGT TATGTGGCTA AA 92

30 SEQ ID NO:5171
 SEQUENCE LENGTH:120
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06175
 SEQUENCE DESCRIPTION:
 35 GATCANCAGA AAAGGCAAAT TTCACTCGNC TAAACACTTT CAATTTTCAG TTNTAATTTT 60
 ATNTTCTATA TACCCAGTCA TAAAGTATAA GCATCAGTTG TCATTAAAAG TTTTCAGAAA 120

40 SEQ ID NO:5172
 SEQUENCE LENGTH:102
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06176
 SEQUENCE DESCRIPTION:
 45 GATCTGTAAT GAAAAGAATC TGNTACTGCA AGTAAAACCT ACTCCCCAAA AATGTGTGGC 60
 TTTGGGTCTG CATTAAACGC TGTAGTCCNN GTTCATGCCA AA 102

50 SEQ ID NO:5173
 SEQUENCE LENGTH:171
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

55

CLONE:HUMGS06177

SEQUENCE DESCRIPTION:

5 GATCACTTNT NGTCTGATTC CAGCCTGCTT GCAACCCTGG GNTCCTCTTG TTCCCTGCTG 60
NCCTGCCCTT TGGGAAGGGG CAGTGATGGC TTTGAGGGGA AGGAGGAGAC CCTCTTTCTC 120
CCATGCTGCA CTTACTCCTT TTGCTAATAA AAGNGTNTNT AGATTGTCAA A 171

SEQ ID NO:5174

10 SEQUENCE LENGTH:188

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06179

SEQUENCE DESCRIPTION:

15 GATCTAAACT GTATTGNCCA ATTTAAATAA AAAATNNAAT ATAGATTCAG AAAGGTTCAT 60
ATTTTCTAA TGACTTCATT CTATATTATN TTGTTAGGTT GCATAAAGAA GCAAGGAATT 120
GTACTTGAT TAAAAGATGA AGAAAGCTAT TAGGTATATT TGTACATGNC TGCANNTGTG 180
TCTATNNN 188

20 SEQ ID NO:5175

SEQUENCE LENGTH:69

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS06180

SEQUENCE DESCRIPTION:

GATCTTGAGA GGTGGAGGTT GCAGTGAGCC AAGATTGTGC CACTGNCTTC CAGCCTGGGA 60
GACAGCAAA 69

30 SEQ ID NO:5176

SEQUENCE LENGTH:134

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS06181

SEQUENCE DESCRIPTION:

GATCTGTATA TATGTAACAT ATTAATGGGT AACTTGCTGT GTAAAATTAT AAGCCATATT 60
TTAAAAGGTT TAAAAATAC TTATTGTGCT CCATTGTGA TATAATTNCT AACATTCTG 120
CTCTGTGANN NNNN 134

SEQ ID NO:5177

SEQUENCE LENGTH:59

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06182

SEQUENCE DESCRIPTION:

50 GATCTTGAG ATTGTTCCAC ATCAGTACAT AAAGTACATA AAGATTGTCA CCCCACAAA 59

SEQ ID NO:5178

55

SEQUENCE LENGTH:193

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06183

SEQUENCE DESCRIPTION:

GATCTGTCTA CTTNNCTTAT CCTGATTCAA ATGGAATGCC AGTATGGAAC TCCTAGGATT 60
 TGTCACGAAT GGGAAAGCCAA GTGCCATCTT CAAAATTTC AAGTCTTAAAC NTGGAGAAGG 120
 AAGCCAACAT CCTTTTGGAG CCATGAATNT TGTCCGAACT CCANNNTGTT GCTCAGANTG 180
 GANTTTCAGT GGN 193

SEQ ID NO:5179

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06184

SEQUENCE DESCRIPTION:

GATCATTATT TGGNAATATG TCCTATGGAA AGAATAAAAG CATGTNCTTC ACAGCTAGCA 60
 GTTTCACAGA TTTGAAAGAA GTTTCATTAA AAGCACCATT GCTTTCAAA 109

SEQ ID NO:5180

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06185

SEQUENCE DESCRIPTION:

GATCTTAATT TAAATAGGTG CTTTAATTTT ACAGCTTTCA AAAGTAGTTA CTGTAAATTT 60
 TACTCCTGTT AATGCTGGAT TGGTTTAAAG GATTATAAG GGCTGTGTTT NCTCNTACA 120
 AGGCAAGATG CCATACAGNG TTCANTAATA GAAGGTCTNG ATACAACCGA CATTTTAAAT 180
 ATTCTNTATA CATGNNGACT GCGTCTTTT CACTGACCCT ATGANTTCAC TGTGGAGTAG 240
 GGTGAACTGG NCTGCANATT AGTTTATTG TTGCCATAAT CACATTNNG AAAAGAN 297

SEQ ID NO:5181

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06186

SEQUENCE DESCRIPTION:

GATCTNATTG CTTATAAACT TTGGTGACGG TAGTGTGTAA GGCCGTATTT NNAGCATCTN 60
 ACAGGTGTTT AAAAAAAGT GGTGTGCGCA CTGGGAAGTG GAGTGATGGC CTCGTCTCCA 120
 GTGCTCCTCT GGGCTCTTGA GTTGCTGCTT GANTTGCCGT GTAGACATTT NCTGGAGAG 180
 TCCACTTGTN ATTTGACGGA GGTAGGTTTC AACCAGAGT TAATGTCAAG CATGCTAATT 240
 TANCTAGTCA CTCACAGATG ACTTTCCTTT AATAAAAGTC CCTTTTCCCT AAAANAAAAA 300
 A 301

SEQ ID NO:5182

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06187

SEQUENCE DESCRIPTION:

GATCTTTGGG CAAGTCACTT AACCTCTCTT TNCCTCAATT TCCTCATCTT GAAATGAGGA 60
 TAATAATACC TGCTGTACCT ACCTCACAGG GCTGTTGTGA GGATTAAATG AGNTGGCATG 120
 TGAAAGCACT TTGAAAATTG TAAAGCGCTA TGTAATGTA AGGTATTATA GAANCATCTT 180
 TAACATATAG TTTCATACCA TTCATTTTTT ACCAAAGAAA GGGAAAGTNT GCTNGTANGC 240
 TGGTTGAAAA AGTTANNCTT GGTATAANNT TGNGTTTGGT TGANGNANAA GGN 293

SEQ ID NO:5183

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06188

SEQUENCE DESCRIPTION:

GATCACAAA GTATATAAAA AGTCTACTAG AGCAACATTT TCCCATATTT TTNGGTTCTC 60
 AAAGCAACTT ATGTATGNTT TAGAGANGNC AAAAGAGGAA GCCTAGGGGG AAAAGAAAGA 120
 NAATTAGAAT TTGCAAAATNC TAGAAAAANN 149

SEQ ID NO:5184

SEQUENCE LENGTH:157

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06189

SEQUENCE DESCRIPTION:

GATCGAAAAG AAATTTNTTT ATACTTGATG CCTTAAGATN CCCAAAGCTG CCCAAAGCTC 60
 TGAAAGACTT TAAGATAGGC AGTAATGCTT ACTACAATAC TACTGANTTT TTNTAGAGTT 120
 AACATTTGAT AATAAACTT GCCTGTTTAA TCTCAA 157

SEQ ID NO:5185

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06190

SEQUENCE DESCRIPTION:

GATCTTGCCT GGAAGGTGTT TTAAGTTTNN TAATAACAA GATGATGTCT GAAAATNTGA 60
 AA 62

SEQ ID NO:5186

SEQUENCE LENGTH:145

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06191

SEQUENCE DESCRIPTION:

GATCTAGAGC AGCATGGAGC TGTGGTAGA ATATTAGTTT TTAACCATAC ATTGTCCCAA 60
 AAGTGTCTNT GCATTGTGCA AAAAGTAAAC TTAGGAACAT TTNGGTATTA AAAGGATTAT 120
 TTTAATTGNN AAAAGCCNGA NGCGN 145

SEQ ID NO:5187

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06192

SEQUENCE DESCRIPTION:

GATCAACAGC TCCGCCTACC GCAAAGCATT TGANAGCAGA CTAGCCANCA GTNGTGCTCT 60
 GAGAGTGAAC GNGCACCTCC AGGTNGAGGG CCACAGCAAC GTN 103

SEQ ID NO:5188

SEQUENCE LENGTH:248

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06195

SEQUENCE DESCRIPTION:

GATCTGATAG AGGGGGAGGC AGAAGCAGAT ACTAGAAACA AACAAAACCT TGGACCAAAA 60
 TCCCAATTCA AAGAAACAAA AAAAAGAGTG GAACTATTC TATCATAACT ACCCAAGGAC 120
 TACTAAAAGG ANAAATTGTG TTACCTTTT TAAATTCCT GTTAAGTCCC TTCCGTAATT 180
 TTNATGTTCT TGTGAGGANA AAAGTAAANC ATGTTTANTT TTAANNAAGG NGANAGNGGG 240
 NGTNTAGN 248

SEQ ID NO:5189

SEQUENCE LENGTH:354

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06196

SEQUENCE DESCRIPTION:

GATCTCTTAT ACAGACGCAC CAAAGCCCTC ATTGACTATG AGAACTCAA CAAAGCTCTG 60
 GATAAGGCCC GGTTAAAGAG CAAAGACGTC AAGTTGGCTG AGGCACACCA GCAGGAGTGC 120
 TGCCAGAAAT TTGAACAACT TTCCGAATCT GCAAAAGAAG AACTGATAAA TTTCAAACGG 180
 AAGAGAGTGG CAGCATTAG AAAGAATCTA ATTGAAATGT CTGAACTGGA AATAAAACAT 240
 GCCAGGNACA ATGTCTCCCT TTTCAGNGC TGGTNTTGAC TTGTTCAAGA GTAACCTGGT 300
 ATGCCTTCAC TCNGTAGGAA NNGGAGTTGA ATTGTTGTAA GGAAGCCNAN GTGN 354

SEQ ID NO:5190

SEQUENCE LENGTH:77

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06197

SEQUENCE DESCRIPTION:

GATCTCTATT TTAAACTAG CTTTTTAAGC AGCTGTATGA AATAAATNCT GAGTGAGCCC 60
CAGCCCGCCC CTGCAAA 77

5

SEQ ID NO:5191
SEQUENCE LENGTH:257
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

10

CLONE:HUMGS06198

SEQUENCE DESCRIPTION:

15

GATCTAGCTT CANAGGAAGT CTACACCCCA TTCCCTTCTG CTTACAATGT ACCCATGATA 60
TGTTGTTAGC ACAGTAATAC TGTAACAGGA CATCATGTTG AAAAATCAAA GCAGCTGGCT 120
CACTGTATTT AACTGAAAAG AATGCCTACA GATTGGATAT TTNGTAGGGG NAATTAAGGC 180
ACTTTNNNTAA CAACTTCAT INTGTGAAAC TNGGTTGAAT ATTAACATAC AATTNNGNCG 240
GGNNTATTAA TGCCATN 257

20

SEQ ID NO:5192
SEQUENCE LENGTH:185
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06199

25

SEQUENCE DESCRIPTION:

GATCCCAGGC TGCCCTGGAC TTAGACCAGT GTCTGAGGTG GTAACAGCGG CCGCACAGGG 60
TTGGCCTAGA CCTNGGATTT GTGGGGAAAG CTGCTGGTGT GACCANTGA GCACCCAGCC 120
AGGAGACCTG CAGCCCTNCG NCTTCCAGAA GCAGGTCCCA AATAAAGNCA GTGCCNACCT 180
NCAAA 185

30

SEQ ID NO:5193
SEQUENCE LENGTH:60
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

35

CLONE:HUMGS06200

SEQUENCE DESCRIPTION:

GATCTGTATA TAACTTTAAT TTTAAGGACC ATAATCAACT TTGTAATATT CTNATATAAA 60

40

SEQ ID NO:5194
SEQUENCE LENGTH:286
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06201

45

SEQUENCE DESCRIPTION:

50

GATCACCTC TACGGGAGAA CCAAGGAGCT GACTTCGGAA CTAAAGGAGA ACTTCATCCG 60
CTTCTCCAAA TCTNTGGGCC TCCCTGAAAA CCACATCGTC TTCCCTGTCC CAATCGACCA 120
GTGTATCGAC GGCTGAGTGC ACAGGTGCCG CCAGCTGCCG NACCAGCCCG AACACCATTG 180
AGGGAGCTGG GAGACCCTCC CCACAGTGCC ACCCATGCAG CTGCTCCCA GGNACCCNG 240
NTGATGGAGC CCCACCTTGT NTGCTAAATA AACATNTGCC CTCAAA 286

55

SEQ ID NO:5195
 SEQUENCE LENGTH:138
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06202
 SEQUENCE DESCRIPTION:
 GATCTCTTGT TCTCTCCTGA GTGTCTTCT ACTNTGCTGA GNGTCTTTCT GCTGTCCTTA 60
 TCCTGTTCTC TTATCTNAT CCCCTCCAGT CTCTGCCTAA TTTNAGTGT TTAATAACAA 120
 CCGNATGTCT AGTAAATN 138

SEQ ID NO:5196
 SEQUENCE LENGTH:96
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06203
 SEQUENCE DESCRIPTION:
 GATCAAGAAC TTGGAACCGC AGAAAACGAA ATCCCATAGT AGCACAAAGC TTGGCTGTTC 60
 AGTGAATAAC ATTTAAATAA TCGTAAANTA CAGAAA 96

SEQ ID NO:5197
 SEQUENCE LENGTH:222
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06204
 SEQUENCE DESCRIPTION:
 GATCTTGCAG CTTTATTGA GTATTGTTC TTTGTGTAG TTTCCATCTT TAAAAATATT 60
 TAAAATATTT TCAAGATAAA GTATTATCTT CTCTGCAAAA ATTCCTGGAG TAATTTNCTC 120
 TCATAATATT TGAGGTCAGT GGTTCCTCAGT TGTATTAGTG GGGTAACTAC ATCAAAGTAA 180
 ATAANGTCTT ATTTTNNANA TGCAAATTTT AGACCATAGA AA 222

SEQ ID NO:5198
 SEQUENCE LENGTH:53
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06205
 SEQUENCE DESCRIPTION:
 GATCAAGTGA ACCATCCCTA GTCTCCCTC AATAAATAAC TTTTAACTCC AAA 53

SEQ ID NO:5199
 SEQUENCE LENGTH:239
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06206
 SEQUENCE DESCRIPTION:

GATCANAGTG AACCCCTCAGT TTGTACAAAA GAGTATGGGC TCACAAGANG ATGATTCAGG 60
 AAACAAACCA TCCAGTTATT CTTGAAACTA ACATCCATCC TGAGCTAAAC NAGAGAACT 120
 ACCATCTTGG CCAGTGNCAN GTGTTCCGAG GGCAGCAGAG NGGACCAAGC CTGTGTCACC 180
 TGGNGACTAA GAANTTAAGT TTTGTNTTGA CATATTCAGT CCTGTGTGCT TNCAGNAAN 239

SEQ ID NO:5200

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06207

SEQUENCE DESCRIPTION:

GATCGAATAC GTGGATGNGA CGGGCCGGAA ACTCACACCC AAGGAGGCTT TCCGGCAGCT 60
 GTCGCACCGN TTCCATGGCA AGGGCTCAGG CAAGATGAAG ACAGAGCGGC NGATGAAGAN 120
 GCTGGACGAG GAGGCGCTCC TNAAGAAGAT GAGCTCCAGC GACACGCCCC TNGGCACCGT 180
 GGCCCTGCTC CAGGNGAAGC AGAANGCTCA GANNGACCCC NTACATCGTG CTN 233

SEQ ID NO:5201

SEQUENCE LENGTH:163

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06208

SEQUENCE DESCRIPTION:

GATCAAAAAG GGGTTGATTA CAAGGGCAGG AAGGAATTGT TAGTGTGATT CTACAGTTCT 60
 GCATCTTGT TATGGTATGA CTGTGCGTTT GTCAAACCTT AACAGGATGA ATTTTGCTGA 120
 ATGTAAAATC ATACTTCAAT AAACATGACT TTAANAACCTT AAA 163

SEQ ID NO:5202

SEQUENCE LENGTH:319

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06209

SEQUENCE DESCRIPTION:

GATCAGTTTA TGTGTAATAT TCTAGTGCTT TAATGACTCT TTTTTCTTT GGAGGGAGGG 60
 TAACATTATT TGGACAGATG CAGAAGGAAC TGTTAGTGAG TCAAGACAAA CACATCTGAA 120
 ATAAAGGAAC TGTGTATTAA CATGTTAACA ATTCATAACT GCACITTTTA TGACATTTTG 180
 AAAATCTATT TATAGGTACA GANCAATGGG TTTTGTTAAN CTGTATCACA TTTATNCTTG 240
 CAGAAATTTA TTNCATTGTT ATTAGTAGGA ATTTTNTTGG TTCAATAAAA TTGGCAAAA 300
 CTGGGAAAAA NAAANNTTN 319

SEQ ID NO:5203

SEQUENCE LENGTH:82

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06210

SEQUENCE DESCRIPTION:

GATCTGTCTA GTTCCCATTC TCTGTTCAAC CTCAGTGNTT CAAAAGTTCC TAATAAATAA 60
 ACTCATTGGA GTTGAACCTA AA 82

5 SEQ ID NO:5204
 SEQUENCE LENGTH:145
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06211
 10 SEQUENCE DESCRIPTION:
 GATCAAGAAA GAAGCTATCT GGGANCANTG TAGCANTTAC GTCAGACCAG GACACTTCCT 60
 GTTTACAGGA GACTATAAAA CCTTTGTCCT ATCATCACTT GATGTGGACG NCATTTTAGG 120
 CCTCAGCCCG CCTGCACCCA GNNNN 145

15 SEQ ID NO:5205
 SEQUENCE LENGTH:295
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 20 CLONE:HUMGS06213
 SEQUENCE DESCRIPTION:
 GATCAGAAGC ACCTCTTCTT TTATAGAAGT TGATGGATGG TTCATTCCAT TCTGCTACCA 60
 AGAAGTGCGAT GCTGCTGCAG CGACACCTCA TTGCAACCTA TTATGAGAGA GTAAACACA 120
 25 CACTCAGTGA CATTTTCAGCC TGCTCTCAAG NCCCAATTTT TATTCCATCA TTAAATAAT 180
 CCAGTAAACT TNCAAAATTG GAAACCANAA ACTAAGGCAT ACCTGGCTTA GATTCTTTCA 240
 GAATTTTCTG NTCTTTTGTG CGTAAATTNA AAAATAATTT GTGGCAGGGN TTAAA 295

30 SEQ ID NO:5206
 SEQUENCE LENGTH:87
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06215
 35 SEQUENCE DESCRIPTION:
 GATCTTTAAA ATNAAAGTGTA CGCTTATAAT ACAAGTAATG CTTGTGTATT TCTCACTTTA 60
 GGAAATAAAA TATTTGCCAA TTTGAAA 87

40 SEQ ID NO:5207
 SEQUENCE LENGTH:165
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06216
 45 SEQUENCE DESCRIPTION:
 GATCCTCCCA TCTCAGCCTC TCGAGTAGCT NGGACCACAG TTGTGTGCCA CCACACTTGG 60
 GCTAACITTT TAATTNTTT GCGGAGACGG TATTGCTATG TTGCCAAGGN TGNTTACATG 120
 CCAGTACAAT TTATAATANA CACTCATTTT NCCTNCCGTC TGAAA 165

50 SEQ ID NO:5208

55

SEQUENCE LENGTH:116

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06217

SEQUENCE DESCRIPTION:

GATCTTCTTC AGAAGCTTCA AGTCTCANCT GCATTAAAGC TCTCCATTGA ACCCGNTCAC 60
 AAAAGTACAA GCTTAAAGGG GCTAAATCC ATTAATACAT NCCATNTTAT ANCCCN 116

SEQ ID NO:5209

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06218

SEQUENCE DESCRIPTION:

GATCCCGTGN ACCGAGTACA CGACCCAGGT ATGTACCAAG TAGGCACCCT TGGGCGCACC 60
 CACTGGGGCC AAGGGTCGGG GGAGTGTTGG GAGCCTCCTN CCCACCNNAC CTNCCTN 117

SEQ ID NO:5210

SEQUENCE LENGTH:181

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06219

SEQUENCE DESCRIPTION:

GATCAGCCAC TTGCTGACCC TGGTTCCTAA GGACACATGA CATTAGTCCA ATCTTTCAAA 60
 ATCTTGCTTT AGGGCTTGTG AGGAATCAGA ACTAACCAG GACTCAGTCC TGCTTCTTTT 120
 GCCTCGAGTG ATTTTCTCT GTNTTCACT AAATAAGCAA ATGAAACTC TCTCCATTAA 180
 A 181

SEQ ID NO:5211

SEQUENCE LENGTH:344

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06220

SEQUENCE DESCRIPTION:

GATCANAACC AGTTTGTAGA TTTCTTTGTT CCTTCTCCAT TCCCACTGCT TCACTTGCCT 60
 AGTCTTGAAG NAAAAAACA AAAACA AAAACCTTGT TCCTTTATAG GTTCCTGGTA 120
 GAATCAGTAG AGATGATTTC AGCTCATTGA CATTTTTTA AGCTATATCC CCTTGTCATT 180
 CCATTGAGAA AGCTGACAAC TGGGATAGGG AGGGGATTCTG ATAATAGATG GGGTCAAATT 240
 CTGTGTGAAT GTGAACCTGC CTAGTAAGCA CTTTGGTCTG TGGTTCACCTN CTGCGGTTAG 300
 NGGAAATCTA TCTCCCCTAT CTNNGGGTCC TTGAACTACA GCNN 344

SEQ ID NO:5212

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06221

SEQUENCE DESCRIPTION:

5 GATCACATAA CTAGGAAGTG GCAGAACTGA TTCTCCAGCC CTGGTAGCAT TTGCTCAGAG 60
 CCTACGCTTG GTCCAGAACA TCAAACTCCA AACCTGGGG ACAACGACA TGAAATAAAT 120
 GTATTTTAAA ACATCTAAA 139

SEQ ID NO:5213

SEQUENCE LENGTH:179

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06222

SEQUENCE DESCRIPTION:

15 GATCGTAAAC CATTATCCTT TAAAGGTNTA TTTGAAGATG CTGTTAAAGT ACAGAATTTT 60
 GTGTACAGGT AGATTTTNCC GTCCTTCATT AATAGTGCCT TCTTAATTAA TACAGACTGG 120
 TGTTAGCTAT AACAAAATC CAGTANNGGG GGGTGNATCC CAAGTNCCTT GTGGCNANN 179

SEQ ID NO:5214

20 SEQUENCE LENGTH:129

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06224

SEQUENCE DESCRIPTION:

25 GATCAAAATG TTCTGGAATT AGATGTGATG TTTGCACAAC TCTGTGAATG TACTAAGAAC 60
 CACTGAATTG TATATTTTAA AAGCATGGTA TGTGAATAAT ACCTCAATAA AGCTGTTATA 120
 AAAAATAAA 129

SEQ ID NO:5215

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06225

SEQUENCE DESCRIPTION:

35 GATCTTCAAG CATAGNNTTG CATATTTTAA CATCTGAAAT CAGAAAAGTG CTTNNCTGGG 60
 AGTNTGGTTT TAGAAACATG AAATAGTACT GTATGTTAAA ATCGATGGCA GTGTTGCCTC 120
 GATGATATNT N 131

SEQ ID NO:5216

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06226

SEQUENCE DESCRIPTION:

45 GATCTTTGAG CGGGACCTGA AGAAGAAGGG GCCCGAGCCG GTGCCACTGG AGTTTATCCC 60
 AGCCGAGGGC CTGCTGGGAC GGCCGGGTGA ACTCTGTGCC CAGCACTTCA CGCTCAGCTG 120
 50 ACCCTGGCCC ACCTGTNAAT AAATCTCAGC TGACCCGAGC CCACCTGTNA ATAAATNTTT 180

55

TTGCAGGAAA

190

SEQ ID NO:5217

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06227

SEQUENCE DESCRIPTION:

5 GATCCCTGGT CTTCACTG TAGCAGCCAA AAGGAACAAG CTGAAANTGG ATACCTAATG 60
 TAAGTGGAGT CTTCTAAGTG TTCCTGGAA GAAGTCGGGT CCCAGGCTCN AGTTGCTGGT 120
 TCTNACATGC CACCATCCAC AGTCCTTCAG CAGATTNATT CAGTGGCTAA TGCTGATATC 180
 ATAAATGCGG CAAAGAAGTT TTTTCTGGC CAGANGTCAN TGGCAGCAAG TGGAAATTG 240
 15 GGNCATNCAC CTTTTGTG ATGAGTTGTA ATACTGNNGC GCNCATTACC AGGTGAGAGC 300
 TGGANCGTNT TTTCAGNCCN TGN 323

SEQ ID NO:5218

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06228

SEQUENCE DESCRIPTION:

25 GATCAAAGTT CAAATTAATT TTAAGTTAGC TAATNAACTC ATCACCAGGA CAGTTGGAGG 60
 GGGTAGGCCG AGGTTAAATG GTCCACGTTT CAAAAATGTT AATGGCTAAT CCATAATTAA 120
 AGAAGGTTTA ACTGTTACTG AAGTTTACAA GTTTTATTGT CATGNACATG AANTACAAAC 180
 ACGATGGCTT CGAAATGTCT TTCAATAANT GTTCTGTCAT TTTAA 225

SEQ ID NO:5219

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06229

SEQUENCE DESCRIPTION:

35 GATCTCATTG TCACCTCAGA AACCATTTAC AACCCAGATT ATNATAGTAA TTTGCACCAG 60
 ACTTTCCTTA GACTGTAAAG TAAAAATGGA CGTGTACTTT TGGCCAGCAA AGCACATTAT 120
 TTTGGTGTAG GTGGAGGTGT TCATCTCTTT CAGAAAGTTG TAGAAGAAAG AGATGTTTTT 180
 40 AAGACCAGAA TACTCAAAT AATTGATGAA GGATTGNNGA GGTTCATAAT TGNAATAACT 240
 TTTAAGTTTC CTGGNTTANT TAACATTCAC TTNGTGTCC ANAATTGGNG ATAGACNGNN 300
 AGGCACANGN TGTCTN 317

SEQ ID NO:5220

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06230

SEQUENCE DESCRIPTION:

GATCATATAC AGTTCCCTTT TTA AAAAGCA ATAAATNCTT GGAATTAGAA A 51

SEQ ID NO:5221

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06232

SEQUENCE DESCRIPTION:

GATCAAGAAT GTTCCCAAA GTTNTGAATA GAGTGCACA ATGTATCCAA GANTTGTGAA 60
GCAATGATTC TTTACAATAC AATAAGITT AATTATTTAC AAA 103

SEQ ID NO:5222

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06233

SEQUENCE DESCRIPTION:

GATCTCAGC ATGNTGGAA TTTCAAAAAG CCAAACTCAC AGAAGCAGAG TAGGATGGTG 60
GTTGCCAGGG CCTGGGACGT GGGGAAAATA GGGAGATGTT TGGTGTCTGT TAGGAAGAAT 120
GAATAAGCTC TGGAGAGCTA ATGTACAGCA TAGTGACTNN NGNTAATAGA ACCGTATTAT 180
ATACTTGANA TTTGTGAAGA GAGTAGATGT TAANNNNN 218

SEQ ID NO:5223

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06234

SEQUENCE DESCRIPTION:

GATCTGCAC TTA CTCTGT GTGACCTTG AAAGGCTACT TATTCCTCT CTTAGCTTTC 60
TCATTAAAT CAATGAACAA TGCCAAA 87

SEQ ID NO:5224

SEQUENCE LENGTH:202

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06235

SEQUENCE DESCRIPTION:

GATCTCAGGC TGAGCAAAAT NAAACCTTGA TGTACGGGC TAAATCAAGA GCAGCTTAAT 60
CCTGTTTACA ATGTGAGCTT TTTGTGCGTC TGTGAAATGT TTTACAGTGT TTCTCATCAT 120
CTGTTTCCCA GCAAGGTCTT TNNTTTTNCN ACATTGAAGT NCTGNCTATG TATCTNAATC 180
ACAAATGGNT TCATTCAC TN 202

SEQ ID NO:5225

SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06236

SEQUENCE DESCRIPTION:

5 GATCACAAGC GTATCCATNG TGAGGTTCCG TGGATGGAAG CTNATGGATN TNCCTTCCTG 60
ATGTTTCATCT GCCACCTTGC TATTNAATGC ATCCTGTTTA TAACTGTCTT CTAATATTG 120
AATAGAAATA AAGCATTGT ACAGTAAA 148

SEQ ID NO:5226

10

SEQUENCE LENGTH:370

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06237

15

SEQUENCE DESCRIPTION:

GATCGAAATT GCGGGCTATG GCGCCGAAGT TTTTCGTNAG TACTGGGATA TCCCCGATGG 60
CACCGATTGC NACCGCAAAG CCTACAGCAC CACCAGTATT GCCAGCGTCG CTGACTGACC 120
GCCGCTGCCT ACAGAGTCAC ACTCAATCCT CCGGGCACCT TCCTTGAAGG AGTGGCTAAG 180
20 GTTGACAAT ACACGTTTAC TGCAGCTGCT GTCGGGGCCG TGTTTGGNCT NACCACCTGN 240
ATCAGCGTCC ATNTCCGTNA GAAGCCCGGA CGANCNCNTG AACTACTTNN CTCGGTGGCT 300
TTCGCCGGAG GCTTNACTTT TGGGGGNANG GACGTACAAT NTACGGGGTT TGGGGCCGCC 360
GNNTTTGGTN 370

25

SEQ ID NO:5227

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06238

30

SEQUENCE DESCRIPTION:

GATCTGTGTG AAGAATGGTA ATNACGTAGT TGNAAAGGAA AATGTACTGT TGTGTGTTTC 60
ATTTGTGTGA TTTCTACCA AAAAAATGTG TTTGAATAT ATTGTATGTA ATTTGGAAGT 120
CGTGTTAATA AAACCCTGCA GTTCCAAA 149

35

SEQ ID NO:5228

SEQUENCE LENGTH:129

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40

CLONE:HUMGS06240

SEQUENCE DESCRIPTION:

GATCAGGCTT TGAAGGCTGG ATTCTATCTA CATAAGTCCN TTCAATTCCA CCATGGGNCA 60
GAGCAGCTCC ACCACGTGTG CACTTAGCCA TNGNTGGCAA CAGAAACCAA GAGACACANN 120
45 TACGCAGGN 129

50

SEQ ID NO:5229

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS06241

SEQUENCE DESCRIPTION:

5 GATCATTAG GAAAAATAAT TCTATTTTGA GCTTTTCATT TCTCAGCTGT CCTTNTTCT 60
 NNTTTGATT TTGACAGCAA TGGAGAATGG GNTATATAAA GACTNCCN 108

SEQ ID NO:5230

SEQUENCE LENGTH:102

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06243

SEQUENCE DESCRIPTION:

15 GATCAAGAGT TGTCATGCTA GGGAGACTAT TCTGCCTAAA ATTCTGGGGN ACTATTTTGT 60
 GTTTAAGNAT ACTATGTATA TTAAAAGGGT ACATATTGA AA 102

SEQ ID NO:5231

SEQUENCE LENGTH:60

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06244

SEQUENCE DESCRIPTION:

25 GATCTTAAAA GTGTATTTT TGCTTTTATT TTTAAAAAA GGNGAGGNT TATTGGCAAA 60

SEQ ID NO:5232

SEQUENCE LENGTH:76

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06246

SEQUENCE DESCRIPTION:

35 GATCTGCAGA TAGTTCTTTT TCAAAATATT GTTAGACAA AATAAATTC TTAAATATA 60
 ATATCTCTAC TTCAA 76

SEQ ID NO:5233

SEQUENCE LENGTH:314

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06247

SEQUENCE DESCRIPTION:

45 GATCGNTCTG GTCGCAGCTT AGGAACAGCA GACGTGCACT TTGAGCGGAA GGCAGATGCC 60
 CTGAAGGCCA TGAAGCAGTA CAACGGCGTC CCTNTGGATG GCCGCCCCAT GAACATTCAG 120
 CTTGTCACGT CNNGATTGA CGCACAGCGG AGGCCTGCAC AGAGCGTAAA CAGAGGTGGC 180
 ATGACTAGAA ACCGTGGCGC TGGAGGTTTT GGTGGTGGTN NNGGCACCCG GAGAGGCACC 240
 CGCGGAGGCG CCCGTGGAAG AGGCAGAGGT GCCGGCAGGA TTTCAAAGCA GCAGCTTTCG 300
 GCAGAGGAGC TTTN 314

50 SEQ ID NO:5234

55

SEQUENCE LENGTH:238

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06248

SEQUENCE DESCRIPTION:

GATCAATACC AAAAGACACT TGGAATCTTC TTTTAGACTT CAGTACGATG ATTGCAGATG 60
ACATGTCTAA TTATGATGAA GAAGGAGCAT GGCCTGTNCT TATTGATGAC TTTTGGAAAT 120
TTGCACGCCC TCAAATTGCT GGGNCAAAAA GTACAACAGT GTAGCACTAA AGGNNCCTTC 180
TAGAATGTAC ATAGTCTGTA CANTAAATAC ANCAGTAAAT TGCACAGTCA GNANNNNN 238

SEQ ID NO:5235

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06249

SEQUENCE DESCRIPTION:

GATCTGCAAA CAATGAAGAA TTATGTAATA TATTGTACAA ATGTAAGCAA AGGCTCTGAA 60
ATAAAATGCC ATAGTTTGTG AAA 83

SEQ ID NO:5236

SEQUENCE LENGTH:178

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06250

SEQUENCE DESCRIPTION:

GATCTTAAAT ATCTTGCAGC CTTAAATCAC TACAAACATT TGCATTNTTA TTATGCCAGT 60
TATTCCAAA ANGTATTGTN ATACATGTCA CTTATGTTTT TAAGCTANTA TTGACTGTAG 120
GATAATCTCC TTGTTCCCT CAAAATAGTC ATGNAAGTGT ACATGAANNT NTTTTTAN 178

SEQ ID NO:5237

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06251

SEQUENCE DESCRIPTION:

GATCTGAAGA GCTTGCAGC TCTNTTAAAT AGGTTGCTGN ACATGTTCTA AGGTTTTGTA 60
GAACACGTGT GCCTGTTTAA GTGTATTGAT GTTAATANTA TTAATATCC TAATGATNGA 120
ATGCATTGTA TGGTNCNTN 139

SEQ ID NO:5238

SEQUENCE LENGTH:363

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06253

SEQUENCE DESCRIPTION:

GATCTAAGCC ACAGNGGGGA CTGGAGCCTC GTTTTCCCCC TAGGCAGACC TAAATCAAGC 60
 AGCTTACCAC AATAGTGCAT GCTGAGTAGA TTAGTTCCAA GGAAGGGAGA CTGGAATGCT 120
 GGTGTCAAGG AAAAGCCTCC CTCATCATCT AGTCTAAGAC CATAACGGGC AGAAGCATAA 180
 GAGGTTCAG GGCCATAGGN GANTGAGAAG TAGGGCACAT ATAGGGAGGA AAGAAAAGTG 240
 NAGNNGGGGG ANATCTCCGA NTTTTTTTAC TGCTTGGGAA AAGTGACTA CATGANGGNT 300
 GCTTNGGGCT TTGCTAACCT GCTCACCCT AACCCTNCCA AGTNTTAACC ATCCCCAGNG 360
 GTN 363

SEQ ID NO:5239

SEQUENCE LENGTH:171

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06254

SEQUENCE DESCRIPTION:

GATCTGAGGA ACAAATGAT GTCATTTAAT CGGAATCTAA ATGTGACACA AACACGTGC 60
 CAGCAATACC TGCTTGTGAA ATAATGTTCT GAGCCACAG TGTTCTGGG TATGTGAGTT 120
 TATATCAAGT GAAAAGGCTG CTTAATTGAC ATTAAAGTTT TGAATGTAA A 171

SEQ ID NO:5240

SEQUENCE LENGTH:348

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06255

SEQUENCE DESCRIPTION:

GATCATAAGT ATAAATGTCC TCGTTTAATC TTTCCATATT GAGGACAGCC TCTGCATATA 60
 AAAATGTTCA TTGGGAGAAA AATTATTTT AAAACTAAAT TTTTATAGTA GTCCTCCATT 120
 ACTGGCAATT AAGGAGCAAC CCACAAAATG TCATTATGTG GTTCTTTGAT TAGGCATAAA 180
 ANGTATTGCA AACAGCTTTN CTATTCCTTT GGAATATGAN TCTTTTAAAT GTCTAANGTT 240
 AACCTGCAAC ATATTCTAGT AGGACANGTC AATGTAAATN AGGTAATTNT NGCCTGTNTT 300
 ATACCTNCTG TNGCCATTG GTNCAAAATGN NAACCATTN TNAGNCCN 348

SEQ ID NO:5241

SEQUENCE LENGTH:357

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06256

SEQUENCE DESCRIPTION:

GATCAACAAG AGAAATAAAA AAGCCCAAGA GGAAGTGGTA GGGGAAGGAA TTTAAGAACA 60
 GCAATAAGTA AAACCTTAA GTAACCTCAA AAAGAAAATG GTACATTTG CCAAAGACCA 120
 CTTATACTTG AGAACATGGA AGAATTTGCC TGATACTNNN NGNNGGGGAA AAGAGTCTCT 180
 CCTCTTTTCC TCAAACCCCA GTACACTCAG CCTCTNTGCC CCACCTTCTC CTGACTTTGT 240
 CCTCACITGC TTCTGCAGTA CATTGGAACC TGNNTTGAAA GAAAGTCTTC CTTGANTAAT 300
 TGGAGTTTGT CTTTGNGNGG CAAATTTAGN CCCNNGGNTC ACAAGNTTTC GGGGGTN 357

SEQ ID NO:5242

SEQUENCE LENGTH:160

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06257

SEQUENCE DESCRIPTION:

GATCGGGGAC ATCCTTAGGC TGGTGGCCGG CCGCATCAAG AACACCTTCT GATTGAGCGG 60

TTGCCATGGC CGGTCTCCGT GGGGCAGGGT TGGGCCGCAT GTGGAAGGGC TCTGAGCTGT 120

GTCCCTCCTTC ATTAAGAATT TTTATGTCTC GTGTCAGAAA 160

SEQ ID NO:5243

SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06258

SEQUENCE DESCRIPTION:

GATCAGACTA AAAACNATAA CACCATAGGT CAAAANAAGT TGTCTGAGG TTTTTTTGAA 60

ACATTAAAGN TCCAAAACAT GACATTTTA AGAATAAATT TGNAATAGAG TATAATTGNN 120

TN 122

SEQ ID NO:5244

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06259

SEQUENCE DESCRIPTION:

GATCTCCCCT CTCACCCCTC CCACCCATTA ATCTCCTCCC AAAAAACAAG TAAAGTTATT 60

CTCAATCCAA A 71

SEQ ID NO:5245

SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06260

SEQUENCE DESCRIPTION:

GATCTGTTGT AATATATGGT GGATATTTTC CTTAATTTTC AAACATAACC TCTGAAATNT 60

GTATCTNTCC TTTTNTATCT TACCAATTANT TTTAAATCTA GTGGATTGGT TTTN 114

SEQ ID NO:5246

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06261

SEQUENCE DESCRIPTION:

GATCAGACCG CTCAAAGGTC CCCGTNTTCA CTGTTACCCA GAGGCTCTTG TNACTACCCA 60

CTTCATTCCC CACCGCTGCC AGTGCCACTG CCAACCCTGT TCACAGGCGN TTCCAGCCCA 120

CTCCAGCCAG GGGAGCAGGG AAGAAGAAGG GGCTCCCTCC TCTTCACATT CCCCCCGACC 180
 CCAAAGCCAG AGAAAGCCAG ATGGCACCAG CTGCTCCGGA TGTGCCTGCC CACATTGGGG 240
 GACAGGGCGG GGCCTGGGCT CGGTTCCNAG GTTTGAGCTC TGCAGNCTGT GTCCTGGNGT 300
 GAGGGGGCTG AAGTNAGNCC AAAGGAAGAA CTNAGTN 337

SEQ ID NO:5247

SEQUENCE LENGTH:168

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06262

SEQUENCE DESCRIPTION:

GATCACCTNA TTTTTNAAC AAAATATTN TAACAGGAAT GGGTGGGAGT NCTGGTGAAA 60
 AGAGGTGAAA TGTGGTTGTA TGAGCCAATC ATATTTGTAA TTNTTTAAAA AAAGTTTAAA 120
 AGGAAATATC TGTCTGAAA CCCCCTTAA GCATTGTNTT NNTATAAN 168

SEQ ID NO:5248

SEQUENCE LENGTH:378

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06264

SEQUENCE DESCRIPTION:

GATCAACAAA GAGGACTTTG TGGCACTGGA GAGGCTTACC CAGGGGATGG ACATTCAGTG 60
 GATGCATGTT NCTGGTCATT CGGGATTTAT AGGCAATGAA GAAGCTGACA GATTAGCCAG 120
 AGAAGGAGCT AAACAATCGG AAGACTGAGC CATGTGACTT TAGTCCTTNG GAGAACTTNA 180
 GCCAGCGGCT GTCTTGCTGC CTGTACTTAC TTGTGTGGAA AATAGCCTGC AGGTAGGACC 240
 ATTGCAGTGA TGGCAGATT GGGTCTTTCA CACGNGTCA GGCACAGTGG CCTTCTGTNG 300
 NCATGGTNGT TTTATANANA AATNGGTTAA GGTATATAAA TAAAGTNTGG NCCANCTTTT 360
 GNNAAGGNAN GANATGGN 378

SEQ ID NO:5249

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06267

SEQUENCE DESCRIPTION:

GATCANCTAC AGGAAAAGTA AATGTGAACG CAAGCAGAAT GAAACACAGT AAAAGCCGGT 60
 CTAGCCTGCC TGGCCACACT CTCAGCGCCT TGTGAGGATG GGNCANTANA TAAANTCATC 120
 TTTAGTAGAA A 131

SEQ ID NO:5250

SEQUENCE LENGTH:322

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06268

SEQUENCE DESCRIPTION:

GATCATCACT AGCAGATGTC AGTTGCACAT TGAGTCCTTT ATGAAATTCA TAAATAAAGA 60
 ATTGTTCTTT CTTTGTGGTT TTAATAAGAG TTCAGAATT GTTCAGAGTC TTGTAAATGT 120
 TATTTTAATA ATCCCTTTAA ATNTNATCTG TTGCTGTTAC CTCTTGAAAT ATGATTTATT 180
 TAGATTGCTA ATCCCACTCA TTCAGGAAAT GCCAGGNAGG TATTCCTTGG GGAAATGGTG 240
 CCTCTTACAG TGTAATNTT NCCTCCTGNA CCTTTGCTAA TATCATGGCA GANTTNNCCT 300
 NATCCCTTTG TGAGGCAGTT TN 322

SEQ ID NO:5251
 SEQUENCE LENGTH:215
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06269

SEQUENCE DESCRIPTION:
 GATCAAAAAT AAGATTACAG TTAATAATATT NCTATATTCA GATGGTTTAG AGACCAGGCT 60
 GTAGAATCAG ACAGCCCTGA AATTGTATCA CACANGGCTG TGTTACCTG TACAAATAAC 120
 TTAGCCTTAC TAAGCCTGTA TTTCTCATC TGCAAANTAG GGNTGNTAAT ATACCTGTNG 180
 NTAAANATGT TTTCAATAA AANC GTTGGC GCAA 215

SEQ ID NO:5252
 SEQUENCE LENGTH:229
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06270
 SEQUENCE DESCRIPTION:
 GATCTAAAGT GCAGCAGAGT GGCTGNTGCT GCAAGTNATG TCTAAGGCTA GGAACATCA 60
 GGTGTCTATA ATTGTAGCAC ATGGAGAAAG CAANTGTAAA ACTGGATAAG AAAATTATTT 120
 TGGCAGTTCA GCCCNTTCCC TTTTCCAC TAANTTTTN CTAAATTAC CCATGTAAAC 180
 ATTTNANCTC TCCAGTGCAC TTTGCCATTA ANGTCTCTGC ACATTGAAA 229

SEQ ID NO:5253
 SEQUENCE LENGTH:219
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06271
 SEQUENCE DESCRIPTION:
 GATCGTGAAG GAGGCTTACC CAGACCACAC ACANGTTTGA GAAAAACAAT CCCCATTAATN 60
 ACCCATCTAG CAAAGAGGAC AACCTAAGT GGTCCATGNG TGGATGTACA GTTTGTNCGG 120
 ATGATGAAGC GTTTCATTCC CCTGGCTGAG CTCAAATCCT GTCATCAAGG CNCACAANGC 180
 TACTGNTGGC CCCTNAAAAA ATATTGTNT NTGTCATN 219

SEQ ID NO:5254
 SEQUENCE LENGTH:144
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06272

SEQUENCE DESCRIPTION:

GATCACGCTG AAAGAATACC TTGCAGACAC TTAATCTCTG CGGCAAATGC ATGAAAGTAG 60
 AAGGATGAAG CCAACTTTCC AAAAATTTT ATGAAATTAC TTCAGTGNGA AAACCTATTA 120
 AATNAANTNC AGCCNTTCTN TAAA 144

SEQ ID NO:5255

SEQUENCE LENGTH:184

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06273

SEQUENCE DESCRIPTION:

GATCCCGGGG ACATGATGCG GGAAATCCGC AAAGTNTTGG ACGCCAATAA CTGCGACTAT 60
 GAGCAGAGNG AGCGCTTCTN GCTCTNCTGC GTCCACGGAG ATGGGCACGC GGAGAACCTC 120
 GTGCAGTGGG AAATGGGAAG TNTGCAAGCT GCCAAGACTN TCTCTNNACG GGGGTCCGGG 180
 TNTN 184

SEQ ID NO:5256

SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06274

SEQUENCE DESCRIPTION:

GATCAATGTG GGCACCTAAA AGGGTATGTT AAAATCACCA TTTCTCAGGT CAAAATACTG 60
 TGAATAAGTC TTCAATAGAA TCACTANTGG TTNAAA 97

SEQ ID NO:5257

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06275

SEQUENCE DESCRIPTION:

GATCATATCT ACATGTATGA ACTTAACATG GAAAATGTTA AGGAAGCAAA TGGTTGTAAC 60
 TTTGTAAGTA CTTATAACAT GGTGTATCTN TNTNCTTATG AATATNCTGT ATTATAACCA 120
 TTGTTTCTGT AGTTAATTA AAACATTNC TTGGTGTTAG CTTTCTCAG AAA 173

SEQ ID NO:5258

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06277

SEQUENCE DESCRIPTION:

GATCTTTCTG GGAGCTGCGC CGGACAGAGT GGGGAGCTCC TAGTTTNTGG GGGGAAGCTT 60
 TGATATCCAT GCCACGTCCA TCCACCCAC CCCTNTTCTG CACGAGCACA ATGGTCTTAC 120
 ATTNGATNTN TGTAAAAAAA TANAATAAAA TGGAGACTTT AACTCAAGCA ANNAAN 176

SEQ ID NO:5259

SEQUENCE LENGTH:93

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06278

SEQUENCE DESCRIPTION:

GATCATTGGA ACCTAGGAGT TAGAGGCTGC AGTGAGCTAG AATTGCACCA CTGNATTGCA 60
CCTTGGACAA CAGAGTAAGA CTCCGTCACC AAA 93

SEQ ID NO:5260

SEQUENCE LENGTH:296

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06279

SEQUENCE DESCRIPTION:

GATCAGGAGG CCACCCCTT CTGTGGCACT TCTGAGATGA CAACTTGTTT CACAGTTGGA 60
TGGGGGTGGG GAAGGAAAGA GCGGCCCAT TATTCCAGAA CATTTTATCC ACACAGGCTC 120
AGACACCTG TGATGAAGAG TCCAAGAACA GCCTGAGATA AGGATGTCAT TNTNTTTCA 180
CAGGNCCAC GATGGGTTTA TTTTTGGGA CCAAGACATT GGGTCCCTAC ATGTTTTCCC 240
CTACCCTTCT NNGGGAATAA AATATCAAAC ANCCNCANA GNTGTNNTAT TNNTGN 296

SEQ ID NO:5261

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06280

SEQUENCE DESCRIPTION:

GATCTATTGA CTTGTAGAGG TTTGGGACAA ACAGGAATAT AAAGATTATG GAATTGGGAA 60
A 61

SEQ ID NO:5262

SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06281

SEQUENCE DESCRIPTION:

GATCACTGCA AAACCTAAGG AGGCCCGGG CAGAGGAAAA AAATTTACCA CCGATGATTC 60
CATTTGTGTG CTGGGAATAA GCAAAGAAA CGTTATTTT NAACCTGTGG CAGAGCTGAA 120
GAAGCAACG GATTTTAAGC ACAGGATTCC CAAAGANCAG TGGTGGCTCA AGCTACGGCC 180
CCTCATGAAA ATCCTGGCCA AGTACAAGGC CAGCTATGAC GTGTCGGACT CAGGCCAGCT 240
GGAANCATGT GCAGNCTGG NGTGTCTGAC CCAGTCCCGN CTGCATGTGC CTGCAGCCAC 300
CGTGGNCTGT CTCTTTTTG TNACACTTAA GTTNTTTN 339

SEQ ID NO:5263

SEQUENCE LENGTH:258

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06282

SEQUENCE DESCRIPTION:

GATCTTATCT ACTTTCTCAT CTCCATATTT TGTAAAGAT AATATTGCCA GATGTAAAGA 60
 AAATGGTTTA TTCTACCTAA AGAGTGGATA AGGAGAGAA ATTATGATGA AATAAAAAATT 120
 ATAAGCAAAG TTTATTTAAN CTAAATTTAA ATGTGAAACA TCACCTTTTT CCTANTCAGA 180
 TTTGATATTG CTACGGATAT ATNTTGNTGA TATNGTCACT ATATANNCAT ANGGGGANTT 240
 TNACTNTCTA TTACCCTN 258

SEQ ID NO:5264

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06283

SEQUENCE DESCRIPTION:

GATCTCTCTC CTCTCTGACC TGGATACGCT TTGGTTTCTC AACTTCTCTA CCCCCAAGAA 60
 AAGATTATTC AATAAAGTTT CCTGCCTTTC TGCAAACATA AA 102

SEQ ID NO:5265

SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06284

SEQUENCE DESCRIPTION:

GATCTAGATT TGAAAGTAAA TTTTATGAAG ACATTGCCCA TTTTACTTTC CTCATTCATT 60
 ATTGTAACAG CATCATAGCT TTATTACTCT AATCCCAGGT AAGTCAAGCC TACACTGCCC 120
 TAGNGGNGC GTAAACCCAG AANTTCATGC TGGCTTAANT AATCTATTTT TGTTCCTNAT 180
 CNTTTGAATN TTTAAN 196

SEQ ID NO:5266

SEQUENCE LENGTH:203

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06286

SEQUENCE DESCRIPTION:

GATCAGCCTG GGCAACATGG TGAGACCCTG TCTCTACAGA AAAGACCTGA AAATTTTAAA 60
 AAAAAGTATA AAGCCAAGCT GTTACCCAGC CACCTTGCTC ACATATTCTC AGGACCTGCT 120
 GAGGTGGTTT CACAGGTCAT AGTCCTCACA TTTGCTCAGA ATAAATATCT TCAAATATTT 180
 AAANNNGGN NANAATNTNT GNN 203

SEQ ID NO:5267

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06288

SEQUENCE DESCRIPTION:

5 GATCTGGACT ATCCACGTGC TTGAAACTT TTCCCCTCAC CCTCCAGCCC TGGAGGCTTT 60
 TGCTGGGATG AATGTTTTTA TAGGGTTTTT GTTGTAACAT AAGCTATTTT CTAATATGCT 120
 GCCAGGTACC CTAAA 136

SEQ ID NO:5268

10 SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06289

SEQUENCE DESCRIPTION:

15 GATCTNGGAC TACNACTGGA CTACTAGCCT CCAGAACTAT NAAATAATAC ATTTCTAATG 60
 TCTAAGCCAA A 71

SEQ ID NO:5269

20 SEQUENCE LENGTH:345

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06290

SEQUENCE DESCRIPTION:

25 GATCGGTTTT TGTGGGGAAT CTCCCTTATA AAGTTGAAGA ATCTGCCATT GAGAAGCACT 60
 TTCTGGACTG TGGAAATATC ATGGCCGTGA GGATTGTNAG AGACAAAATG ACAGGCATCG 120
 GCAAAGGGTT TGGCTATGTG CTCTTTGAGA ATACAGATTC TGTTTCATCTT GCTCTGAAAT 180
 TAAATAATTC TGAATCATG GGGAGAAAAC TCAGAGTCAT GCGTTCTGTT AATAAAGAAA 240
 30 AATTTAANCA ACAAATTC AATCCACGAT TGANGAATGT CAGTAAACCT AAGCAGGGAC 300
 TTAATTTTAC TTCCAAAAC GCAGAAGGNC ATCCTAAAAG CTTGN 345

SEQ ID NO:5270

35 SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06291

SEQUENCE DESCRIPTION:

40 GATCTCTGCT GTGCAGGTGC TAAGATTAAA CACTAAAAAG AAAGAGAGAT ATATGTAATG 60
 TACAACTGAC ACTGCCATTT TNCCTTTTTG GAGGAAATGG ACATAGATAA AGAAGATATT 120
 TCTNCGGTTA AA 132

SEQ ID NO:5271

45 SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06292

SEQUENCE DESCRIPTION:

50 GATCTTCTGC CAAGTAATTT TTTGACACAA TTTTCTGTN CCAAANTTTA CTCAGTTAAA 60

55

AGTAAANAA INCTTTACAC GTTTTAGGTT TTAGGACATT AAAAGTATGT N 111

SEQ ID NO:5272

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06293

SEQUENCE DESCRIPTION:

GATCATCTTA CGATATCAAG CTGAAAATTT CACCACTACC TGGACAGTTN CACATGTTTT 60
ACTGGGAATA TTTTTCTTT NTTTNTGTA TGCTCTGTGC TAGTAGGNTT GATTCAN 117

SEQ ID NO:5273

SEQUENCE LENGTH:232

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06294

SEQUENCE DESCRIPTION:

GATCATATTC ATTATGAAAG GTCAAGCAAA GACAGCAGAN TACCAATCAC TTCATCATTT 60
AGGAAGTATG GGAAGTAAGT TANGGAAATC CAGAAAGANG CCAAGATATA TCCTTATTTT 120
CATTTCCAAA CAACTACTAT GATAAATGTG ANGAGGATTC TTTTTNTTG TGACCTATAA 180
TANTNTACA NGCTTTCATG CATTACTTG GTCCTAAGCA AATTANNGC AN 232

SEQ ID NO:5274

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06295

SEQUENCE DESCRIPTION:

GATCAAGTAT AATGTTAGCT GCAGGTTTTT AATAAATACC TTAATTCAGT TTGAAA 56

SEQ ID NO:5275

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06296

SEQUENCE DESCRIPTION:

GATCCTGAAC ATGTGCTGAT TTNAATTGTG CTATATAGTA TATAAANTAA AATANTTTTG 60
GTATTTCTGC AACGTGACCT GATAATNAAT CTATTCATCC TGAGNAAGCT ATACTTCTGT 120
CCNTN 125

SEQ ID NO:5276

SEQUENCE LENGTH:198

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06297

SEQUENCE DESCRIPTION:

5 GATCATTGGT TCCANNCACA GGTNTAGTAA TNNTGGGTAC TTTAAGGTTT GGAGCACTTA 60
 CAAGGCTGTG GTAGAATCAT ACCCCATGGA TACCACATAT TAAACCATGT ATATCTGTGG 120
 AATACTCAAT GTGTACACCT TTNACTACAG CTGCAGAAGT GTTCCGGNTA GACAAAGTTG 180
 TGACCCGGGG NNCTCTGN 198

SEQ ID NO:5277

SEQUENCE LENGTH:231

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06299

SEQUENCE DESCRIPTION:

15 GATCTCAAGT TGTATAAAC CAATAAATTT GTGTTACTGC AGTAGTAATC TTATGCACAC 60
 GGTGATTTC A TGTATATAT GCAAAGNAGG CAACTGTTTT CTTAGTTACA GAAGTTTCAN 120
 GCTTCACTTT TGTGCAGTAG AAACAAAAGT AGGCTACAGT CTGTGCCATG TTGATGTACA 180
 GTTCTGAAA TTGTTTACA AGACTTTGAT AATAAAACCC TTAANCTTAA A 231

20 SEQ ID NO:5278

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS06300

SEQUENCE DESCRIPTION:

30 GATCAAGNCG CATAGCCTTT ATTCAAGGGG CCTATAAAC CCTCCAGTTC TGCCCCAGG 60
 GCTGGCCTGC TAGCGCTTCA AATCCCAGG TGTCCTAAT TTNAGAAGTA ACCTTTTGA 120
 ATAGCATTAG ACCCTGGCTG TCCCTCCCC ACCAAATAAA CATGATATTT CATTCTNAAA 180

35 SEQ ID NO:5279

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06301

SEQUENCE DESCRIPTION:

40 GATCAAGNNT ANTGCAGCCN TTCTTTTCCT ATTTCTTTT TTNAAGGGTT AGTATTAACA 60
 AATGGCAATA AGTAGAAAAG TTAACATGAA GATTTAGAA GGAGAGAACT TACAGGACAC 120
 AGATTGTGNA TTCTTTGACT GTNACACTAT TGGATGTN 158

45 SEQ ID NO:5280

SEQUENCE LENGTH:375

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06302

SEQUENCE DESCRIPTION:

50 GATCGAACAT NACGTGGTGA TGAAGCCAN CAGCAGCCTA CCCAAGAAGC TGGCACTGCT 60
 GAAGGCCCA GCCAAGAAGA AAGGGGCAGC TGCCGCCACC TCCTCCAAGA CACCTTCCTG 120

55

AGGACGCTGG CCCAGTGCA GGCCAACATC NCACCCCTA CCTCCATATG GGACCTTGCA 180
 GGTAATCCCA CAGGCTGCAC TGTAGGGGG GGGACCCTGT CCCCAGCAC TGGGCTTCAC 240
 CTAGAACTTC AGTGGGGGCC AAGGGTGCTG AGAACCAGC AATGNCCAGG ANGATACAGT 300
 CACTAAACTT CATCTGTCCC CGTGCCCTT CCCAGGTCCT GNTTCACAGG TTTAACCCAG 360
 NACANTAAAN CCTNN 375

SEQ ID NO:5281
 SEQUENCE LENGTH:272
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06303

SEQUENCE DESCRIPTION:
 GATCAGGATG AGATTTAATG CCCATATCTT ACCAGTTCAG TAATCTCCAG AGCCATTTC 60
 CCCTTTAGAG TGAGTCACAT GCAGGGAGTG TGAATGTCAG AGGTGGTTA TTATCCAGTC 120
 TGCCTTACCC ITAATCTGTT CACAGATATT TATTTACTAA TGCTTTTTT TTCTTAAGAG 180
 TTATGGGATA GGAAATGAA GTGTTTCTC TTCATTTACT AAATGATTGT AAACCTGAGT 240
 TTTTCATCAA AATAAAATTC CATTGTTTTA AA 272

SEQ ID NO:5282
 SEQUENCE LENGTH:379
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06304

SEQUENCE DESCRIPTION:
 GATCCAAGGC CACAAGTAAG GCTATGGCTC TAATTCTAGA AGACAACCTT CCAAGATGCC 60
 TGGCAAAACC ACCTCCCTGT GCCACACAGA CACTAGGC CTGTGTATTT ATTTCCCTT 120
 CAAAGCAGAC TGAGGAGGGA GGAGACGAGG TTCTCTTGGC ATCACTTTCT CCCTGGCTGC 180
 AGAACTAGAC ACCCTTGAAG ATTTGGCCTG GGCCAGTNAG ACTGAAATCA AGAAAAACAG 240
 AAGGGATGTG CAGGGTGGGG GGGTNCCTT CCTGCTCCCA TGTCACCCC CAGGGCCTCC 300
 AGCGTGCAGA CGCGTGTCTT ANTTNATCTG CTCCCACGGA TGANCCTGGT CTTCAATGGG 360
 TTAGCAGNNG NGAGATNTN 379

SEQ ID NO:5283
 SEQUENCE LENGTH:377
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06305

SEQUENCE DESCRIPTION:
 GATCCTCTGA AAAGGCCAG AAAAATAGCT CAGTTCAAAT ACAATGTTCT AGGACAATTG 60
 GAATATAAAT ATTGTCCAAA AATATAATTA AAAGAAAAA GTTTAGCACT GTGTAAAGTA 120
 AGTGTAACT GAGGAAGTCC CAAAAAGGTG CTGTCACITT AAGTTCTGGA CTTGGGGTTC 180
 TTTGTATTTG TAAACAGCAA NGCATTGTG TTTGTTTGT TATTGTAAA GCANCCACCT 240
 TCCTTATTGG MAGNGANAA NNNGGGTNC ATNCATGTNA NTAATTGCTG CAGCATTNA 300
 TATGTTTAT TTTGTGTIAN GCTTTTGTG GCATCGTGN CACATTATT GTTACCAATG 360
 GACATGGGTT CTTTGTN 377

SEQ ID NO:5284

SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06306

SEQUENCE DESCRIPTION:

GATCGTAGTG TTTTAAATA AACACAGTCC AGACTCAAAC GGAGGAAGCC CACATATTCT 60
ATTATAGATA TATAANTANT CACACACACA CTGCTGTCA ATNTTTTGAG TCAGTGCATT 120
TCAAGGAACA GCCACANAAT ACACACCCNN N 151

SEQ ID NO:5285

SEQUENCE LENGTH:325

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06307

SEQUENCE DESCRIPTION:

GATCAACTGA GGAACTCCA GGCCATGGTG ATTGANATAT CAAACAAAAC CAGCAGCAGC 60
AGCACCTGCA TCTTGGTCCT ACTAGTCTCC TTCTGCCTCC TCCTTGTAAC TGCTATGTAC 120
TCCTCTGACA CAAGGGGGAG CCTGCCAGCT GAGCATGGNG TGTGTCCCG CCAGCTTCGT 180
GCCCTCCCA GTGAGGACCC TTACCAGCTG GAGCTGCCTG CCCTGCAGTC AGAAGTGCCG 240
AAAGACAGCA CACACCAGTG GTTGGACGGC TCAGACTGTG TACTCCAGGN CCCTGGCAAC 300
ANTTCCTGCC TGCTGCATNA CNGAN 325

SEQ ID NO:5286

SEQUENCE LENGTH:204

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06308

SEQUENCE DESCRIPTION:

GATCTGCCTC CTGGGAAGGG AAGGGGCCAA TGTCAGCCTC CAGGTGATT CTTAATCTG 60
ACATTACAAA GAGACCAACA GACTGCCAAT TCTACCACAT TCCCCTGGTG GGTACTCGAC 120
TATGTAGTTT TNTCTATGCT TCTGGTCAAC TCTGACACAT CTTGGAATTC TTGTAATAAG 180
AAAAGAAAATT TTTATACTTT TAAA 204

SEQ ID NO:5287

SEQUENCE LENGTH:219

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06309

SEQUENCE DESCRIPTION:

GATCCTCAAA CAGTCGGACC AGATGACAGC CAACTCTGC TAACCCGGGA CTCCTTGCCA 60
TGGACTTTTC CTGTTGTTGT ACACACACAA CAGAACAAA TGANGCAAAA CAAACAAAA 120
AAACCCACAA AANTTTGTAA AATGTAATTA ATATTCAANG AAAAGGNGGA AANTCTTCAT 180
TTGTTGGAAA TGAALNCGTT CTAGCAACTG TAANNNANN 219

SEQ ID NO:5288
 SEQUENCE LENGTH:259
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06310
 SEQUENCE DESCRIPTION:
 GATCTTAAAA TTCATCTAGA TTTCAAGCAT TCAGCTGACT TGCCTCATAA ATGTAGTGAC 60
 TGCTTGATGA GGTTTGGAAA TGAAAGGGAA TTAATAAGTC ACCTTCCAGT CCATGAGACA 120
 ACTNGATTAT TCTCTNTAAC TTACAGAATG TTAGTNTAAA ATAATAAATN CATCCTTNTT 180
 TTGGAGATGA TTAATGGAT GATTGTAAAC ACAACTTATG AAATCTGCCT NTAACAAGTA 240
 NCTTTNTTAA ATNNTANN 259

SEQ ID NO:5289
 SEQUENCE LENGTH:99
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06311
 SEQUENCE DESCRIPTION:
 GATCTTATTG GCTGATGGTG TTGTTGAATT CTATATCCTG TTGATTGCT GTCTAGTTGT 60
 TCTATCAATT ATTAAAAGAG GAATGTTAAT GTTCCAAA 99

SEQ ID NO:5290
 SEQUENCE LENGTH:81
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06313
 SEQUENCE DESCRIPTION:
 GATCAAATAC TTAAAGGAA AAAATGTTGG ATTTATAAAT NCTATTTTTT ATTTTACTTT 60
 TATAATAAAA GGAAAAGCAA A 81

SEQ ID NO:5291
 SEQUENCE LENGTH:132
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06314
 SEQUENCE DESCRIPTION:
 GATCTGAAGG CCGTTCCAAG CGAGGGTGCT TCTGAGGACA CTGAGAAGAG TTTTGCCATT 60
 CTGAAGAGGC GAGCCTGTGG AACTNTTTAA GGTCTGTTC CCAGAAGAAT AAAAGTTTCT 120
 CATTATGGCA AA 132

SEQ ID NO:5292
 SEQUENCE LENGTH:102
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS06315

SEQUENCE DESCRIPTION:

5 GATCACTCTC CCTGACATCC ACCTGTATGA CTTTGTACC AAATGCTGTC TTCTCTTCT 60
 CCAATCAAGA AATAATAATC CCTCGAGTTT ACAAACACA AA 102

SEQ ID NO:5293

SEQUENCE LENGTH:196

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06316

SEQUENCE DESCRIPTION:

15 GATCTCANCT TCATGCCAGG CCTTGGGTTT GACAAACATG GCAACCGACT GGGGAGGGGC 60
 AAGGNCTACT ATNATGCCTA TCTGAAGCNC TGTTTGCAGC ATCAGGAAGT GAAGCCCTAC 120
 ACCCTGGCGT TGGCTTTCAA AGANCAGNTT TNCCTCCAGG TCCCAGTGAA TGAAAACGAC 180
 ATTGAAGNTA GATGNN 196

20 SEQ ID NO:5294

SEQUENCE LENGTH:237

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06317

SEQUENCE DESCRIPTION:

25 GATCAAGAAG TTTGTGTACA CATAATCTCA TTTNAGATA TATAACTATT TTTNTCTTTC 60
 AGAAGTGAAT CAAAATATTT CAAAATGCTG TCTTATGAAA CTACAATATT CTCACAGATT 120
 AGAAAAGTTT TNCGTAAAAA GTCAGATAGT AAATATTNA GGTTTTGCAG TGTCTNTTGC 180
 30 ANCTNCTCAA CTTTCTACT GTNGCACANG NGTAGCTGTG GTACTGTGCA AATNAAN 237

SEQ ID NO:5295

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS06318

SEQUENCE DESCRIPTION:

40 GATCACTACC TTTTCTCTC TNATCTGCTG CCATNTGAGA TGTGGCTTTC ACCTTCCGCC 60
 ATGATTGTAA GGCCTTCCCA GCCCGTGGN CCTGTAAGTC CANTAAACCT CTTTGTAAA 120
 TTAAA 125

SEQ ID NO:5296

SEQUENCE LENGTH:198

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06319

SEQUENCE DESCRIPTION:

50 GATCTTACAG ACTGTATCAG TCTAATTTT AAATTTAAG TTATTTTGA CAGCTTTGA 60
 AATTCTTAAC ATTTTATAT TGCCATGTTT ATTTTGTG GGTAAATTGG TTCATTAAGT 120

55

ACATAGCTAA GGTAAATGAAC ATCTTTTCA GTAATTGTAA AGTGATTAT TCAGANTAAA 180
TTTTTGTGC TTATGAAA 198

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SEQ ID NO:5297
SEQUENCE LENGTH:129
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

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CLONE:HUMGS06320
SEQUENCE DESCRIPTION:
GATCTAATTT CCTNTTAC ACAAACTTTA CACTTTAATC TGATGATTGG ATATTTAATT 60
NNAGTGAACA TCATCTTGTT AGCTAACTTT AAAAANTGGA TGTAGAATGA TTAANGGTTG 120
GTATGATNN 129

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SEQ ID NO:5298
SEQUENCE LENGTH:143
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

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CLONE:HUMGS06321
SEQUENCE DESCRIPTION:
GATCTGTGCC ACTTGTGTCA GAGAAGAAGA AACACGTAGN GCAAGTTGTA AAATAATTGG 60
TATTCCTAAC AATCCTGATG TATAATTNTT TGTTACTTTT GNTTTGAGAA CTCTACANAT 120
AAAAGTGCTG GGACTAGATT AAA 143

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SEQ ID NO:5299
SEQUENCE LENGTH:334
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06322

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SEQUENCE DESCRIPTION:
GATCTCTTCG ACTCCTACGA CCTTGGGGAC CTGTTGATTA ATTGAGTGGC CCTGCCTGCC 60
CCCAGCAGCC TGCCCCGAC TCTACCTCCT CACAGACAGG CTGACAGCCC CTCTGCCTGC 120
ACAGGGACAT TGGACACTAG GTGCTGCCCT CAGGGCATGG GGTCTCCTCG CCTTTCCTGC 180
CCCAGCCGGC AGAAGCTGTG TGGGGNGNNA TGAATGCTAC GGGTGAGGAG TGGATAAGGG 240
GTGGTCCTCA CCTTNTAAT GGAAGCTGGG CCTAGGGAGG CCCATNCAGT CTTCTGACTT 300
CTNGACCTCT NACAAGAAGG NTGCAGGTGA GGTN 334

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SEQ ID NO:5300
SEQUENCE LENGTH:337
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06323

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SEQUENCE DESCRIPTION:
GATCTGGAGC CAGCTGGCTT TGCTCCGTTT CCTGGCTAGT CTGTGCCTGG TCACCAGGGA 60
GGCTGAGTGA GGGGCTGTGA ACAGTTGCCG GAAGCACCCC CTCCCTCCCC GGCCCGTGCA 120
GCAGTGTCTG AGCTGTAGTG AAAGTTTCAG GGCCTGCAAA AGAAGAGGCT TGGGCACAGG 180

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ACTGACCATN GCTCCAGGGG TTTAGGACCC CCAGGNCNGT GAAGGTGGGA GCAGCTCACC 240
 ACCTTTNACG CAGGCTTTGG TATGTTCTCT NAGGCTTAGT TGATTTTGGG CCCNAAANCA 300
 AATNCAAAAG GTTCTGGGC CAACCTTTTG TTAANTN 337

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SEQ ID NO:5301
 SEQUENCE LENGTH:326
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06324

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SEQUENCE DESCRIPTION:
 GATCACAGCT CCAGGACCAG TGCAGGCTGG CTGCCCTCTT TTGCCCGCGT CTGGAATAAT 60
 GGACGCCGCT GGCAGTCCAG ACATCAATTC AAAACTGAAG CTGCAGCAAT GAAGAAGCAG 120
 TCACATACAG AAAAAAGCTA ATCATGCTCT CTACCAACTA CCATGAGGCT AGNAAGCAAA 180
 GTCAACAAAC CCTATTATA CCTCCACCA AATTCTTTAT CATTGTCTTT CTTAGGAAAC 240
 AGNCATACTC ATTCATTGA TTTANTAAGG TTTTATTTT CCAANGTNG NTGTGGNTGN 300
 TTNGGNNNNN TTGTGGTGGT TGNGNN 326

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SEQ ID NO:5302
 SEQUENCE LENGTH:174
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06325

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SEQUENCE DESCRIPTION:
 GATCTTTNAT TTACCTGTAC AGGAGTGTA ACTTTTTNGT GNTTTTATTT TTCAATTGTG 60
 AGAACCACTG ATTGGTATGT TCAACAAATT TGTGTATACA AAGAAATGGA TAAATCACTG 120
 CTATATANGG GAAACTACCT TAGGAAAGAN TGTTTACTGA ATGTTTATNN NATN 174

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SEQ ID NO:5303
 SEQUENCE LENGTH:104
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06326

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SEQUENCE DESCRIPTION:
 GATCAGTGAT ATTTGATGTT AGTGTGTAC TATAGGGTGC CAATAACTCT GCCTATACAA 60
 GATGGTGTAC TTAATCAATA AACGTGTATT CTGACTGCCT TAAA 104

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SEQ ID NO:5304
 SEQUENCE LENGTH:238
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06327

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SEQUENCE DESCRIPTION:
 GATCCTTCCG TCTCAGCTCC CCAACCCAG TAGCTGGGAC TACAGTTGCA CATCATCATG 60
 CCTGGCTAAT TTTTNNATTT TTGTAGAGGT AGGTTTCACT ATGTTGCCCT GGCTGGTCTT 120
 GAACCTCTGG GCTCAAGTGA TTCACCTGCC TCGGNCCTC AAAGNGCTGG TGTTTACNGG 180

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CATGAGCCAC TGTGTCCGAC CCANACCTAC TANTGTAAAT NGANNTTTTN TTAACNN 238

SEQ ID NO:5305

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06329

SEQUENCE DESCRIPTION:

GATCAACAGA GTGAGACCCC TGTCTATATA TTNNTTAAAT TTAATAAATA AAAGANTAAA 60
ATTGTGTAGC TCAGTATAGT ATCAAGATTA ATCTGCCTAC TCACATTCTT ACACTTTATA 120
NNANTGTAAT AN 132

SEQ ID NO:5306

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06330

SEQUENCE DESCRIPTION:

GATCCAGCCA TNACTAACCT ATNCCNNTTT TGGGGAAATC TGAGCCTAGC TCAGAAAAAC 60
ATAAAGCACC TTGAAAAAGA CTTGGCAGCT TCCNGATAAA GCGTGCTGTG CTGTGCAGTA 120
GGANCACATC CTATTTATTG TGATGTTGTG GTTTTATTAT CTTAAACTCT GNTCCATACA 180
CTTGATAAAA TACATGGATA TTTTATGTA CAGAGGTATG TCTCTTAACC AGTTCACCTA 240
TTGTNCTCTG GCAATTTAAA NGANNGTCAG TAAATTNNTT TNCTTGTNAA AGN 293

SEQ ID NO:5307

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06331

SEQUENCE DESCRIPTION:

GATCAAAACC CAGCAGAGTG CAAGCAGCAG TGAAGCAGGA TGTATGTGGC CTTGAGGATA 60
ACCTNCACTG TAATAGCCTA AACACANCTC TAATTTACTT ACAGCCTTAT GTTTTGTAT 120
TGNCTTGGTA GACTAGGTAA TTTTTTTTA AAGGNCAGGN GACGGNTATT TAAAGNCCA 180
ATTGTCTCTA CGTAGCATNT TAACTAGTTT TNNTGCCAGC NATGTTGN 228

SEQ ID NO:5308

SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06332

SEQUENCE DESCRIPTION:

GATCCCTGAA GTTGCCCTGG TCTCTGCACC TTCTAAACCT AGTCTTAAG AGCTTCCAT 60
TACATGAGCT GTCTCAAAGC CCTCCAATAA ATTCTCAGTG TAAGCTTCTG AAA 113

SEQ ID NO:5309

SEQUENCE LENGTH:154

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06333

SEQUENCE DESCRIPTION:

GATCTGTAC TGTCTCCCGT CACCCNCAGA TGGGGCTGTC TAGTTGCAGG AAAACAAGCT 60

CAGGGCTCCC ACTGAGTCTC TGTGATNGTG AGTTGTAGAA TTATTTAANN ATATGTTACA 120

ATGTAATANT AGTAGAANTA AAGTGCACAN TAAN 154

SEQ ID NO:5310

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06334

SEQUENCE DESCRIPTION:

GATCTCTTTC CCTGTCTTGG AGGTGAAAAG TNATATCTAA GGNTNTGTTT GCAGTGACCC 60

CTAGTTTGGG GTACACAGAC CAGTGTTCCT NATTGACAGT GTTCAATAAG GCCCGTCAT 120

TCTCGCCAGT NTNTTGTGT NCTTAATGGG CTCCTCCTTG AANTGTGTGT GTGTTTGTGT 180

CAAGAGGAGT TNGTGTCTT GGTAAATAAA GNTN 214

SEQ ID NO:5311

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06335

SEQUENCE DESCRIPTION:

GATCTCTNCG ANTNAATTC AATCTAGGGA AAAATGGCAG AGAAGTAAAT GGATGTNCTG 60

GTGTCAATAG ATATGAAAGT GTTGGTTGGC GACTTGCAA TCAACAAAGT TTAATAAATC 120

GAATNNN 127

SEQ ID NO:5312

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06337

SEQUENCE DESCRIPTION:

GATCGAGAAT NACNATNTT TGTAAATGGA AATACCACTA CTAAAGACAG AATGCTATAA 60

ATAGAAA 67

SEQ ID NO:5313

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06338

SEQUENCE DESCRIPTION:

GATCTTCTGT ACTTCTGTCT TCCATAGGAC AAATNATAAG TACTACATAC CTCATCTCTT 60
GGGTTATNAT TGTAGTCTTG CATTTCATGAT TATNAATTTA AAAATAAATA CCAATTATGG 120
AAATTGTAAA 130

SEQ ID NO:5314

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06339

SEQUENCE DESCRIPTION:

GATCTACATN AGGAAAAGTA TAAGCCCCCT CCCTAATGGC CGCTGGGNGG TGAGGGCGGT 60
GTGTTGTATG TCTTTGGGTG TTTGTTNNTT NATAAAGCAT ATAATN 106

SEQ ID NO:5315

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06341

SEQUENCE DESCRIPTION:

GATCTNAAAA AGAGAGAAGA AAATAAAAAG TATTATTTAT ATGTCAGTGC CAACTTTGAA 60
GGTAAACAG TAGTAGTAAC TTTTGGGAGA AATTCTAAAA ACTACTTTAA AAAGAAGCGT 120
GCACATAAAA TAANTATCTT TCTATCCAAG GCTTGTCATT TNATATGCTT TNNTTGTAAG 180
TTTAANATNN NGCTN 195

SEQ ID NO:5316

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06343

SEQUENCE DESCRIPTION:

GATCTAATTA CTTATAGATT CTGTAGTCTN GNGAAGGNGT GGGTGACGTG ATGAGAGGTT 60
TGAGAAATGG GTGAAATGAA ATGGGGGGAT ATGTAGGTCA AATCANATNA AAGATGATTT 120
TTTTNATGTG AATAAN 136

SEQ ID NO:5317

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06344

SEQUENCE DESCRIPTION:

GATCAGCTTA AGGNTTTAGC GCTGGTGGAT AGACACTCGA GACCAGAAAT CATATTTTNN 60
CTGAAAGTAG ATGATTTACC TGAGGATAAT CAGGAACGTT TTAATAGCCT TTNCTCTCTA 120
AGGGAGAAAGT GGACAGAAGA AGATATTGCT CCATATATTC AAGATTTGTG TGGAGAGAGN 180

SEQ ID NO:5318

SEQUENCE LENGTH:83
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS06345
SEQUENCE DESCRIPTION:
GATCGCGGTA TATAGAGATA TGCATTTTAT TTTACTTGTG TAAAAATATC GGACGACGTG 60
GAATAAAGAG CTCCTTTTCTT AAA 83

10 SEQ ID NO:5319
SEQUENCE LENGTH:180
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS06346
SEQUENCE DESCRIPTION:
GATCTCCTTA GGTGATGCAC AGTCCAACTA CCTGCTAACC ACCGCCGAGA ACGAGCTGGG 60
AGTGGTGGTA GCCCAGAGTG AGTCAGGTAT CCAGATGGTT CCCATCAGCT GGTGTGAGAT 120
GCAGTGCCCT AAGACCCACA CTAAAGAATT CCGGAAAGTA GCCCGNGTAC AACCCGAATN 180

20 SEQ ID NO:5320
SEQUENCE LENGTH:126
SEQUENCE TYPE:nucleic acid
25 TOPOLOGY:linear
CLONE:HUMGS06347
SEQUENCE DESCRIPTION:
GATCAGAGAA TCACAAGAGC AGCAAATGTG GTTTCATCAA GTGGGAAGAA AGCAGCAATT 60
TAAATANCT TTTGGGNGA CTGANTTGAG TAATAATAAA NCTCAGTCT TTCGCTAATN 120
30 ATANTN 126

SEQ ID NO:5321
SEQUENCE LENGTH:225
35 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06348
SEQUENCE DESCRIPTION:
GATCTAGACG CCCCCAAATC CTTGAGATGT GGGTATAGCT CAGGGTAAGC TGCTCTGAGG 60
40 TAAAGGTCCA TGAACCCCTGC CCCACTCCTG TCAGCCCCTC ATCAGCCTTT TCAGCAGGTT 120
CCAGTGCCCTG ACTTGGGATA GGAAGTGTG GTAGGAGGAG GGGGAGTGA GGGGCATAGC 180
CTTCCCTAA TTCTGCCTTA AATAAACTG CATTGCTGAT TCAAA 225

45 SEQ ID NO:5322
SEQUENCE LENGTH:341
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06350
50 SEQUENCE DESCRIPTION:

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5 GATCAGCAAA TTGTTATNTT AAAAAGTTTT CTTGTTTAGG CAATTTGGTA AGTGGTTTCT 60
 AGTTATAAAC TAGCCACTGT TGATTAACCT GAGAAGGTGA AGCAGGGGAG TTCTGAAGAG 120
 ATTACCTAGA GCTACTTAAC CCTAAGITAA GTAAAAITTT CACTTTCATT CTTTTCATT 180
 TCTCATAAAC TGGTTGAAAA AACACTGTAC TACCAACAAA GGTGTCAGTT GCTTGTGCTG 240
 CCCTGTCTAT GTTATGCTCT GAATAGGTCT CGGTAAAGAT TATATGGAAA TACTATAAAG 300
 NNTACATAAG GTAAAATACT AGTCAGANAG GGTCAGGTT N 341

10 SEQ ID NO:5323
 SEQUENCE LENGTH:157
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06351
 15 SEQUENCE DESCRIPTION:
 GATCTGAAGT NCTTCCATTA TATCTATATC TGTATATGNA CATATATGTG GGTGTGTATA 60
 TATATGNGTG TATGTATATA TATACAATTN CCTGAGAACT CACTNTTTTT TGTGAATTTN 120
 CAATAGTGTT CGCCATGTTT TCCACCAGNA TGTATAN 157

20 SEQ ID NO:5324
 SEQUENCE LENGTH:94
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06353
 25 SEQUENCE DESCRIPTION:
 GATCAAGTTT TGATGAAGAT GTGAAAAACN GTTGGGCAGT ACTACTCAAG CTGAACCCCA 60
 TGCATCAGAG AAATTACACT TTTATATNTC CAAA 94

30 SEQ ID NO:5325
 SEQUENCE LENGTH:128
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06354
 35 SEQUENCE DESCRIPTION:
 GATCTGCCCT NCTCAGCCTC CCAAAGTGCT GGGATTAGAG GCGTGAGCAC CATGCCTGGC 60
 CAGGTCTTNC TAACTAAAAA ATAATAATAA TAATAATAAA AAANAAAAGA NGATACTTGC 120
 AAAATAAA 128

40 SEQ ID NO:5326
 SEQUENCE LENGTH:117
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06355
 45 SEQUENCE DESCRIPTION:
 GATCAAGAGT ATTNCTNTA GCTAGCTTAA AAAGAAAACA TATATTTAAT GTAAAANCAC 60
 ATACATGGCC AAATGCAATA CTGANGAGAC AATCATCCTG TATCTTTNAT GGTTTTN 117

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SEQ ID NO:5327

SEQUENCE LENGTH:334

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06356

SEQUENCE DESCRIPTION:

GATCAATGCG CTAGTGCAGG AGCTCGGCTT CTACCGCAAG GCGGCGCCCG ACGCGCAGGT 60
 GCGGCGCCGAG TACGTGTGGG CGCCCGNAAA GCGCCAGAGG AAACCTCGGA CCACGCTGAC 120
 CTNTAGGTCC GGGGGCGCGG CGGANCTGGG ACCTACCTGC CTGAGTCCTG GAGACAGAAT 180
 GAAGCGNTCA GCATCCCGGG AATACTTCTC TTGCTGAGAG CCGATGCCCG TCCCCGTGGC 240
 CAGCAGGGAT GGGGTTGGGG AGGTTCTTCC AACCNGACTT TTTTCTTC CNCAAGNTCC 300
 ACTAAAATTT CCCTTCTGCN TTAACAAAAA AANN 334

SEQ ID NO:5328

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06357

SEQUENCE DESCRIPTION:

GATCAGCCAA ATTGGGCGGC CACCCCGCNC TCCACCACTT TCCACCATCA GCTGCCAAAC 60
 TGGTCCCTCT GTCTCCCTGG GGCCTTGGGT TCTGTTTGGG GGTGATGACC TTCCTAGTTT 120
 CCTGACGCAG GGGNATACAG GGGAGAGGGT TGTCTTCCC CCCAGCAAAT GCAATAATGC 180
 CCTCACCCCT CCTGAGAGGA GCGCCCTCCC TGTGGAGCCT GTNACCTTCG NATTTGACAC 240
 GAGTCTGCTG TGAACNCGC ANTCTGCTT NCACCTNCNA TCTNTCCTNC CAGGGCCATN 300
 CCTGGGCCAG AGCAGGAGGG GAGGGAGGTN 330

SEQ ID NO:5329

SEQUENCE LENGTH:175

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06358

SEQUENCE DESCRIPTION:

GATCAAAAAT NTGTGGGTTT ATTTCTGGAG TCTCTGTTCT ATTGGTCTAT ATGTCCGTCT 60
 TCATGCTGGT ACTATGCTGT TTTATTTACT GTAGCTTTGT AATATATTTN GAAATCAGAA 120
 GGTGGGATGC CTTCAGCTTT GTNCTTTTNN CTCAAAATAA AAAATNCTTT TGAAT 175

SEQ ID NO:5330

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06359

SEQUENCE DESCRIPTION:

GATCAAAATCA GAGTAATTTG GATATTCATC ACCTCGAATA TTTATCTTTC CTTTGTGTTG 60
 GGAACATTAT AATTTTCTC TGCTAGCTAT TTTAGAATAT ATAATAAATN ATNGTCCCCT 120
 AAA 123

SEQ ID NO:5331

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06360

SEQUENCE DESCRIPTION:

GATCAAAGCC AGCCACCCCC ACCCCAACAC ACTCGGTGTC CCTTTCATCC TGGGCCTNTG 60
TGAATCCCAG CCTNGGCCAT ANCTCAACC TCAGTGGGCT GGAAATAACA GTGGGGNCCC 120
TGTAGCAGTG GCAGAATAAA CTTAGATGTT NTNACAGGAA A 161

SEQ ID NO:5332

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06361

SEQUENCE DESCRIPTION:

GATCNTCTCA GNGANGNCGC TTNGGTCGCA GTTTTAGGGG GTTCTCGGTT TGCAGGAACC 60
CTGGGTGCAG GTTCGCAGCC CTGTCAACCA GCTCCGAGCC GGCAGCGAAA CCTGAAAGTGG 120
ACCCTGTGGA AAATNAAGN 139

SEQ ID NO:5333

SEQUENCE LENGTH:145

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06362

SEQUENCE DESCRIPTION:

GATCTNCTCA CCCTCGGTGA NAACAGTGTC AGCCATGCAA GCAGGACAGA ATGGTGACTG 60
GGTGCCCTTG GTGAGCTGTG TATTCCTAG NAGGTAGAAA ACTGTGGGAA ACTGTGGCTA 120
ATAAAACTA AGTGTGAGCG TCAAA 145

SEQ ID NO:5334

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06363

SEQUENCE DESCRIPTION:

GATCTTAAAT NACCTATTTT TAATGTGATT CATACACGTT TTTNACTTAG TGGTTTAAAA 60
TATGAAAGTA TATAAACACA TTACCAACCA CTTTGGGGTA GGAGAAGTAC GCTTAGCATG 120
TCTGTGTCAT ACCTAATTTT TTTAAAGCTA TAATGAACTG ATACACATCA ATTTANNNG 180
NGGTTTTATT CTTTCAATGA ACACTGTATC AAAATTTTTT NATGANGTAA TGTTAGTCTT 240
TGTGGTCAAT AGTTATTGGT AATACTACTA GTAATATGGG TNCATGGCTA TAAGATGCTT 300
TAGCTTAGTG GTCAGTTGTT ATNCTAAGGG GTTTNAATCN AATTNGGTNG N 351

SEQ ID NO:5335

SEQUENCE LENGTH:348

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06364

SEQUENCE DESCRIPTION:

GATCACAAAGT AGAGAACTTG TTTCTTTTCA CCCCTCTTGC TCCTCCCCGG AGTTATGAAA 60
 AATTTCAAAC CTGCCAAAAG TTTGAAGTTT ACAACAAATA CCCTCCAACG TTTGGNTTGC 120
 CTCCCTCCCC CTTCTCTCCC TTNCTCCCTC TGATTTCCTA CAGAACCACG CTTTCATGAC 180
 CATGCCCGGG AACTTCACGC TGGCGCGGTG AGGTCCTGCG CCTCCGNTTN CNGCACACAC 240
 GTGCTTCTNA ATAGCTGCAG GCTATTTTCAAT GAGAGGAATT TGCTCACGTT AACATNGCTG 300
 TTCCCAAATG CCAGGCTGNT TTTAAGTGGT TTCCTAATTT ATAAAGGN 348

SEQ ID NO:5336

SEQUENCE LENGTH:220

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06365

SEQUENCE DESCRIPTION:

GATCTCAATA GTCAGTTACT GATGCTCCTG AACCCATATGT GTCCATTTNT GCACACACGT 60
 ATACCTCGGC ATGGCCGCGT CACTGCTCTG ATTATGTGCC CTGGCCAGGG ACCAGCGCCC 120
 TTGCACANGG GCATGGTTGA NTCTGAAACC CTCCTTCTGT GGCAACTNGT ACTGAAAATC 180
 TGGTGCTCAN TAAAGANGCC CATGGCTGGT GGCATGCAAA 220

SEQ ID NO:5337

SEQUENCE LENGTH:227

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06366

SEQUENCE DESCRIPTION:

GATCCCAGCC ATAAAGTACC TGGGATGAAA GAAGTTTTTT CCAGTTTGTC AGTGTCTGTN 60
 AGAATTACTT ATTTCTTTNC TATATTCTCA TAGCACGTGT NTGATTGGTT CATGCATGTA 120
 GGTCTCTTAA CAATGATGGT GGGCCTCTGG AGTCCAGGGG CTGGCCGGTT GTTCTATGCA 180
 GAGAAAGCAG TCAATAAATN TTTGCCAGAC TGGGTGCAGA ATTTAAA 227

SEQ ID NO:5338

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06367

SEQUENCE DESCRIPTION:

GATCTTNACT CTTGTTTCCT TTGTCCTTTT NTTACAGACAG AGTTGTACCT GCAGCAGACA 60
 ACTCTGAATT AAAGCATGAA AACACAGCAA A 91

SEQ ID NO:5339

SEQUENCE LENGTH:269

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06369

SEQUENCE DESCRIPTION:

GATCTCTCCC CACACAGAGG CCAGCAGACC TCTTCCTGAG GACTTCTGTT TAAAGGAGGA 60
 CGAGGAGGAG GTTGGTGACA GTCAGGCCTG GGAGGAGCCC ACAAACTGGA GCACAGAGAC 120
 ATGGAACCTA GCTACTTCCT GGNAGGTGGG GCGGGNACTA CGGAGAAGGT GCAGCCAGGC 180
 TGTGGCAAAG GGCCCCANTC ACAGCCTTGG CTGGGAAGGN GGGNNGACA GCTGANGGTC 240
 GACTAAAACA AAGTCTGTTT TCATGNAAA 269

SEQ ID NO:5340

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06370

SEQUENCE DESCRIPTION:

GATCTCTTGT NATGGGGCCA ATAAGTCAAT TGAATTCATG GGCCAAACAG TTCCATTCT 60
 CTTCAAA 67

SEQ ID NO:5341

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06371

SEQUENCE DESCRIPTION:

GATCCTNATN ACGNAGCTGA TGCCTGCCTT GGTNCCTACC ACTCTGGTGT AGACAGAGGA 60
 CTTTNTCCAA GTGTCACACT AAACATGCCC GGGCTTCGAT GTGCCTGGAG GATTTCCTCA 120
 CAGGGAACCA CGCACCTCCC TGTATCTGCG CAGTTGCTCG TGTGGCTGGA AGCGCTGTCT 180
 ATAACTTCN NGGCGCTGNN TTGCCAGTTC TTCAGCTCTA GGAATTGTAG CTTTAAGCAA 240
 ACGGTGTGGC ATGGGNTTGA NGTNTGGCCA CCTGGCAGNG NTGTGCAGGG TCTTGCCTTA 300
 NNAAGCTGG CTN 313

SEQ ID NO:5342

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06372

SEQUENCE DESCRIPTION:

GATCAAAAAA TATATGAAAG TTCCTTGTAG ATACATATCT ATAGATATAT ATGTNTATGT 60
 ATATAAAGAT AGATATATAC ATTGAAA 87

SEQ ID NO:5343

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06373

SEQUENCE DESCRIPTION:

5 GATCTTTTTA TATTCTTCTA CCACACCTGG AAACAGACCA ATAGACATNT TGGGGTTTTG 60
 TAATGGGAAT NTNTATAAAG CATTACTCTT TTTNAATAAA TTGTTTTTNA ATTTAAAAAA 120
 AGAAA 125

SEQ ID NO:5344

10 SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06374

15 SEQUENCE DESCRIPTION:

GATCAGGTGG AAATGTTTAA GCTAAATAAA TCTAGGGGTT NTTNAACAA A 51

SEQ ID NO:5345

20 SEQUENCE LENGTH:273

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06376

25 SEQUENCE DESCRIPTION:

GATCTGAAGA AACACGCAG TGTNCACGCA AGCCACTCAG ACAAGCCCAG GGGTTCCTTG 60
 GCCTTCTCAG TCAGCTAACT TTCCTGAGTT CTCCTTTGAC TTCCTAGGG AACAGTTGAA 120
 CAAGAGATTT TTCAATCAAG NCTTTGGAAC TACGAAGATG GAAGAGATTT GAAGAGGGAT 180
 ATNGAATGAG TAAATTAAGC AACTTTTTAN TATCCTATTT CTNTAAATNT CCAGATTTTA 240
 AAACATTCTT GTATTATANT ATCTAAAAAC AAA 273

30

SEQ ID NO:5346

SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS06377

SEQUENCE DESCRIPTION:

GATCTAGATA TTTTCTCTT TTTCTGAAGN TACTTTCTTA AAAAAATAAT AAAATGTTTA 60
 TAGCATTCTT NGTAAA 76

40

SEQ ID NO:5347

SEQUENCE LENGTH:295

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS06378

SEQUENCE DESCRIPTION:

50 GATCAATTCT CCTTTGCGAG GNGACCACCA ANGGACTGCA GAGCTGNCCG GGCATTCTGT 60
 CGTGTTCATG ACCGAGAACT TTNCACACAG AGAGGACTTC TGTCTGACG AAGGAGCGCA 120
 GAGCTGGCCG NGCATTCTGT CGTGTTCATG ACCGNGAACT TTTACAGCT AGGACTNCTG 180
 TCCTGACGTC TTTATNGGTA TAATAGTTGC GTTTAAGNCT GCAGACTTCA AGTTTATATT 240

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TCTCTTTATT GTAACACTCT GTGCANNNTT TGATTNCTAG TTTATTTNCA TTGTN 295

SEQ ID NO:5348

SEQUENCE LENGTH:416

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06379

SEQUENCE DESCRIPTION:

GATCGACCTG AGCACAGTGG ACCTGAAGAA GCTCCGAGTT AAAGAGCTGA AGAAGATTCT 60
GGATGACTNN NNGGAGACAT GCAAAGGCTG TGCAGAAAAG TCTGACTACA TCCGGAAGAT 120
AAATNAACTG ATNCCTAAAT ATGNCCCCAA GGCAGCCAGT GCACGGACCG ATTTGTAGTC 180
TGCTCAATCT CTGTTGCACC TGAGGGGGTA AAAACAGTTC AACTGCTTAC TCCCAAANCA 240
GCCTNTTTGT AATTTATTTT TTAAGNNGGC TCCTGACAAT ACTGTATCAG ATGTGAAGCC 300
TGGAGCTTTC CTGGATGATG CTGGNCCTGC AGTACCCCA TGAGGGGATT NCCNTTCCTT 360
CTGTTTGCTG GTGTACTNCT GGGGGNGNGA AGTGTGTCTG GGGNNTTTT TNNTGN 416

SEQ ID NO:5349

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06380

SEQUENCE DESCRIPTION:

GATCTGAAGA AGTGTTAAG ACCAAGAGTT TATGTACCTT TTTAAACAAA GATTAATAAA 60
TTTTGAAGA AGTGATGAGA CAAAGAAA 88

SEQ ID NO:5350

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06381

SEQUENCE DESCRIPTION:

GATCAGAACA TGAACTTTT TTTTAAAAGA AGATTGAGC ATTTTCCTGT AATCACATCA 60
AAATNATGTT TTCTGTGTAA AGCGAGATAC ATATTNCTNA TAATGCAGCA TTGTGAGAAG 120
TCAGTTCGGC CCACTGCACC ANCACTGTCTG TATCCTTGTT AAAATGGTGT GTACCTTACA 180
ANTTATAATT TATGTGCCAG GTTCGTTTTG TNCTTAATTT GCTATTATTG TGCTGTGTNT 240
ANCCCTGTN NNCTNGGTN 259

SEQ ID NO:5351

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06382

SEQUENCE DESCRIPTION:

GATCTTATAA AGTACTTGTG TGGAGCTTGT ATTCCACAGA ATAAAAGATA TTTTGTGTGT 60
AGAAA 65

SEQ ID NO:5352

SEQUENCE LENGTH:226

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06383

SEQUENCE DESCRIPTION:

GATCTCAGCC CAGGACAAGG TGGGAATNAG TCAAGCCTGG ACTCTGGCCC CCCTGCCTGG 60
CCAGTAAGAA GGGCAAAGTC CAAGGGGAGG GATGAGGNAG GGGCCAGATG GGGTCCTGGA 120
GGAAGAATTN CCTGGCAAAA GCCATTGGAG CTTGTNTGTG TGTCTTTGGT GATGACATNT 180
GTTGTGAGGG TAGATGGGAA CCATNTTAAA AGGATGAAAT GTGAAA 226

SEQ ID NO:5353

SEQUENCE LENGTH:305

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06384

SEQUENCE DESCRIPTION:

GATCCTTTTG TAAGNCCTT CCTGAAGAAG AAAGGTGGCA AATACAGTNT TCAGTTC AAG 60
TTGCCCCGACG TGTATGGTGT ATTCCAGTTT AAAGTGGATT ACAACCGGCT AGGCTACACA 120
CACCTGTACT CTTCCACTCA GGTATCCGTG CGGCCACTCC AGCACACGCA GTATGAGCGC 180
TTCATCCCCT CGGNCTACCC CTACTACGGC AGCGGCTTTC TNCATGATGC TGGGGGCTCT 240
TTCATCTNTC AGCATCGGGC NGGCTTTGCA CATGNAGGGN GAATGNTGGA NGTCCGANIT 300
TTNGN 305

SEQ ID NO:5354

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06385

SEQUENCE DESCRIPTION:

GATCTACATT CTTCAAAAAA AAAAATTGGC TTAAGTGTTC CATCTTNAAG TAGCATTTTG 60
CTGCCATTTG TATTGGGCTG AAGAANTCAC TATTGTGTAT ATACTCAAGT CTTTNTATT 120
TCCNCCTTTT CATAAATNCT CTTGGNCATN ATTGGGCTTG CAGAGTTCCC TTATNCTGGG 180
GATTACAATG CTTTTATCGT TTCAGGCTTC ATTNNGCTT CAAANCAAGC TGGGCACACT 240
GTAAANCAAT GATTTTGCAG ANCCTTTGGT TTTGGACAGT TTCATTTTTT NGGATTTGGG 300
ATAGATTNCA TAGGAGTATG GAGTATGCTG TAAATAAAAA TNCANGCTAG TGCTTN 356

SEQ ID NO:5355

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06386

SEQUENCE DESCRIPTION:

GATCTTTAAC AGCTCCTTTA CTTGCNCTTT GTAAAAAATA ATAAAAATTAG NTTGAATTAT 60

TCTACCTTTG TAAA

74

5

SEQ ID NO:5356

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06387

10

SEQUENCE DESCRIPTION:

GATCCTGCTG GCCGAGCTCG AGCAGCTCAA GGGCCAAGGC AAGTCGCGCC TGGAGCAGCA 60

GAATAAGNTC CTTAACTTAA AATAAATTAA TTTTTCAAA AAACATAAAT CTGGAAGTGT 120

TGTTTCTATA TTTNATAACA AATACAGTAT ATNTNATNTA TAAGCCATGG TCTACTGATA 180

15

CTGTATGAGG ACTTNCCTGA N

201

SEQ ID NO:5357

SEQUENCE LENGTH:409

SEQUENCE TYPE:nucleic acid

20

TOPOLOGY:linear

CLONE:HUMGS06388

SEQUENCE DESCRIPTION:

GATCAGAACG TTAACATATG AACCTGCAGA AATCTGGTAA GACTTAAATT CAGTGTGAGG 60

25

AATAACTCTA GTTCTCTCCT ATGAGCATT TCTAAAAGCC ATCTGATTG GCATTCTTAC 120

TGGAGCTGCA GACAGAAATC TACAAAGNCN NAAGTAAACA AAATTAAGTT ATTATTCCAC 180

TGTTAGGAAT GGAAATAAAC TTGTGAAGTC TGTTTATTTT GAAGTATTGG TGAAGTAGGC 240

TTGCTAATNG GGAGCTGCAG CAGTTTGTGT TTAATCCAGT TCATCAGCTT AGGTCATTG 300

AAAGNTATAA GAGCTTAAAG CAAGAAAGGA ATACCATGGG ATTCTATTN AGGGCCACCA 360

30

GNCCATTCTT GGNAAGCAGC TCCNGTTTGG TTTTCCAGCT GTCAAACTN

409

SEQ ID NO:5358

SEQUENCE LENGTH:175

SEQUENCE TYPE:nucleic acid

35

TOPOLOGY:linear

CLONE:HUMGS06389

SEQUENCE DESCRIPTION:

GATCTGCCCG TNCGGCCTC CCAAAGTGCT GGGATTACCG GCATGAGTCA CTGCGCCTGG 60

40

CCGACAAAGG CTTTGATATC AGAATGAACT GTCAAGGGAG GTGCTGGAGA GGGATTAAAC 120

TGTGCAGAGN CCAANNNGTA TGGAAANAAA ANTGGGATTG GGACTAGGTG NTCTN 175

SEQ ID NO:5359

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

45

TOPOLOGY:linear

CLONE:HUMGS06390

SEQUENCE DESCRIPTION:

GATCAGGCTC AGGCGGCCCC ACTCACCAC AGCATCCGCC GCCACCCCTT CGGGTGTGAG 60

50

CGCTCAATAA AAACAACACA CTATAAAGTG TTTTAAATC CAAA

104

55

SEQ ID NO:5360

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06392

SEQUENCE DESCRIPTION:

GATCTTTCCC AAGAGAAGGG GAAGCACTCG TGTGCAACAG ACAAGTGACT GTATCTGTGT 60
AGACTATTTG CTTATTTAAT AAAGACGATT TGTCAGTTAT TTAAAA 106

SEQ ID NO:5361

SEQUENCE LENGTH:382

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06393

SEQUENCE DESCRIPTION:

GATCTACGCT GCCTTCAAGG AAGTGCTGGG TTCGGGCATG CACCACCACC TCCAGAACAA 60
TGAGCTACTC CGTGACATCT TTGGCCTGGG CCCTGTGCTG TTGCTGGATG CCACTGCCCT 120
GAAGGCCCTGC AAGGTTCCAC GCITTTGAGAA GCACCTGTAC AATGCTGCTG CCTCAAAGC 180
CCGGACCAAG GCTCGAAGCC GTGTGCGGGA CAAGCGGGCA GACATCCTGT GAAGCAGGAC 240
CTGCTGAAGA GGAGACTTTC TATGCCCTTG GTCCGTATTT TTAACAGAAG ACAGTGCAAC 300
AACTGGTCTT CACCAGTATT TGTCACITTA TTTTTTTTAA TGTCAAAACC AAAACAGAC 360
ATGGGGTTGG GTAGCTGGGG GN 382

SEQ ID NO:5362

SEQUENCE LENGTH:354

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06394

SEQUENCE DESCRIPTION:

GATCCNATCA TTCCTTAAAC ATANTACCCT TNGTCTTGA GTAGAATACT AAGTTAGAGT 60
TAGTGGATTT CTAGTTTAGG AGAGGAGCTC AAAACTATAA TCTNTAACAA ATTGAAAAAT 120
GAAATAGGGT GTTTTCCCTT TTTGTGCACA CCTACATNAC CTTAAGAAAT NNCCTTCCAT 180
AGACAGCTGC CTCAAAGGGA AATCCTCTTT AAACCGTAGT TGGCGCAGAG GTCAGTCCTA 240
GTCGGAGCTT AGGAGGTGCG GNGACGCTCA CATCGTCTGG ACTTGAGTCG NCACTGGATT 300
GTGGCANCAN NTTTNGCTCA TNGTCAAAA ATTTNGGCAA TTTCTTTTGG ATTN 354

SEQ ID NO:5363

SEQUENCE LENGTH:79

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06395

SEQUENCE DESCRIPTION:

GATCCAGGGC CTCCTCGCCT TCCTTCTTCC TTTTATATA CAATTGTGA TTGTCAAATA 60
AAAGTAGGAA ATATTCAAA 79

SEQ ID NO:5364

SEQUENCE LENGTH:238

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06396

SEQUENCE DESCRIPTION:

GATCTTTGTG GCCAAGGAGC TGCTATAGCC TGGGGTGGGG TCATGCCCTC CTCTCCCATT 60
 GTCCCTCTNC CCCATCCTCC AGCAGGGAAA ATGCAGCAGG GATGCCCTGG AGGTGGCTGA 120
 GCCCTGTCT AGAGAGGGAG GCAAGCCCTG TTGACACAGG TCTTTCCTAA GGCTGCAAGG 180
 TTTAGGCTGG TGGCCAGGA CCATCATCCT ACTGTAATAA AGATGATTGT NAAATAAA 238

SEQ ID NO:5365

SEQUENCE LENGTH:321

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06397

SEQUENCE DESCRIPTION:

GATCCTTGTG CGTGGCAACC TTAACGTGT GCTGCAGTGC TGATGTATTT ATAGGCTTAG 60
 CATGTCTGCT TTATTAGTTA TCCTGGAAAG AATGCTATTC AGTTTTTTTT TTAATGTCTA 120
 CATCANGGAA TGAATGCTAA ATNAGCCCAT TTAGCAGCCT GAAATCAAAT NCTGCATTNN 180
 TTTTTNAAA CTCTTGGTAG CAAAAGAAAA AGCTGATTAA ANTATGATTG TGTACAATG 240
 ACTAAAGGGT TANCTNCTCA TTAATTCTAA ATNCTTCAA ATGNACAAAG ATCATAATAA 300
 AGGCTTTTGA TNGAANTAA A 321

SEQ ID NO:5366

SEQUENCE LENGTH:409

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06398

SEQUENCE DESCRIPTION:

GATCTACAAG TCAGTGCCCT GTATGCTCTC CAGGTGCACT GCTATAACAG CAACTTCCCA 60
 AAAGGCATGT TACTTCGCTT TTTTGTGCAC TTCTATGACA TGGAAATTAT TGAAGAAGAA 120
 GCTTCTTGG CTTGGAAAGA AGATATAACC CAAGAGTTTC CGGGAAAAGG CAAGGCTTTG 180
 TTCCAGGTGA ATCAGTGGGC TAACCTNGTT AGAACTGCH GAAGAAGAAG AATCAGAGGA 240
 NGAAGCTGAC TAAAGAACCA GCCAAAGCCT TAAATTGTGC AAAACATACT GTTTGCTATG 300
 ATGTAACTGC ATTTGACCTA ACCACTNGCG NAAANTNATT CCGNTGTAAT GTNTTCACAA 360
 TATTTNAAAG CAGANGCAGC TCAGTTTNGG NTTTCCTTCT GCANAAAGN 409

SEQ ID NO:5367

SEQUENCE LENGTH:178

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06399

SEQUENCE DESCRIPTION:

GATCCTCAGT ATAGCCGGTG AACCCCTGATA CCAGGAGCCT GGGCCTCCCT GAACCCCTGG 60
 CTTCCAGCCA TCTNATCGCC AGCNTCTCC TGGACCTNTT GGGCCCCAGC CCCTTCCNA 120
 CACAGCCNA GAAGNGTCCC AGAGCTGACC NCACTCCAGG ACCTAGGNCC AAGCCTTN 178

SEQ ID NO:5368

SEQUENCE LENGTH:75

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06400

SEQUENCE DESCRIPTION:

GATCATGTGA ATATATTAN TTGTATATNA AGCATGACTA CTTTAAGTNT TAAATAAACT 60
 GCAATAATCC TTAAT 75

SEQ ID NO:5369

SEQUENCE LENGTH:354

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06401

SEQUENCE DESCRIPTION:

GATCAGTGNC TGGCACCAGA CACTTCTGGG GATGGTACAG GGTGTGACAA CATGACCTGC 60
 ATCATCATTT GCTCAAGCC CCGAAACACA GCAGAGCTCC AGCCAGAGAG TGGCAAGCGA 120
 AAAGTAGAGG AGGTGCTCTC TACTGAGGGG GCTGAAGAAA ATGGCAACAG CGACAAGAAG 180
 AAGAAGGCCA AGCGAGACTA GCAGTCATCC AGACCCCTGC CCACCTAGAC TGTTTTCTGA 240
 GCCCTCCGGA CCTGAGACTG AGTTTGGTC TTTTCCTTT AGCCTTAGCA GTGGGTATGA 300
 GGTGTGCAGG GGGAGCTGGG TGGCTTCACT CCGGCCATTC CAAAGAGGGG TCTN 354

SEQ ID NO:5370

SEQUENCE LENGTH:93

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06402

SEQUENCE DESCRIPTION:

GATCACTGGA ATGTGGGGAT TCTGAAACAG AAATGAACT GTCCTTTTGA CAACTCTCTT 60
 ATATAATAAA GTATCACCAG CTTGTGTATG AAA 93

SEQ ID NO:5371

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06403

SEQUENCE DESCRIPTION:

GATCATGCAT TATCTTTATA ATTCAAAGA ATTTATATAT ATGTAAAGGA GGAGAAAATA 60
 AAAAAAATA TAATCTTAAA 80

SEQ ID NO:5372

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06404

SEQUENCE DESCRIPTION:

GATCATNTTG ATAATGCTCG GAATATTTTN AAATGTCCAT TCCGCTGTGT TGATTGAGGA 60
CGTTCCCTTC ACGGAGAAAG ATTTTAAGAA TGGCCCCCAG AACATATACA ACCTTTACGA 120
GCAAGTCAGC TACAACTGTT TCATCGCTGC AGGCCTTTAC CTCCTCCTCG GAGGCTTCTN 180
TTTCTGNCAA GTTCGGCTCA NTAAGNGCAA GGANTACATG GTGCGCTAGG GCCCCGGNGN 240
GTTTCCCGN TCCAGCCNCT TCTCTATTTA ANGACTGCNN GCACCGTGTC AN 292

SEQ ID NO:5373

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06405

SEQUENCE DESCRIPTION:

GATCCTNCTG GCCGAGCTCG AGCAGCTCAA GGGCCAAGGC AAGTCGNGCC TGGGGGACCT 60
CTACGAGGAG NAGATGCGGG ACTGCGCCGG NAGGTGGACC AGCTAACCAA CGACAAAGCC 120
CGCNTCGAGG TGGAGCGCGA CAACCTGGCC GAGGACATCA TGCNCTCCG GGAGAAATTN 180
CAGGNNGGAG ATTN 194

SEQ ID NO:5374

SEQUENCE LENGTH:72

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06407

SEQUENCE DESCRIPTION:

GATCCTGGAT TCACTCACTC ACTCATTCTT TCACTCATCC AGCCACCTAA AAACATTAC 60
TGACCATGTA AA 72

SEQ ID NO:5375

SEQUENCE LENGTH:219

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06408

SEQUENCE DESCRIPTION:

GATCAGCAC GAAGGTACG AACTGACCCA GATTATCGCC GACGTGTCCC AGGACCCAC 80
GTTGCCGCGG ACCGAGGACC ACCCGTGCCA AAAGTCCGCG CACAAGGAGG CTGTGTTCTT 120
CCAGTNACAC AGTCCGCGGG NCGANGACGN CATGCCCTT TACTACGTGT GNACAGCCCC 180
ACANTGNGGC CACCGCTGGA CCGAGTGNC TNCNTGTN 219

SEQ ID NO:5376

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06409

SEQUENCE DESCRIPTION:

5 GATCCAACAA GAACATTTC AAAAGTATCT AGGTGTTCTC AAATAAAAAG CTTTCTTTGC 60
ACAAA 65

SEQ ID NO:5377

SEQUENCE LENGTH:97

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06410

SEQUENCE DESCRIPTION:

15 GATCTGCTAA TGCTTTTCTAG GAGTCTGCCT GGAAACTTTG ACATGGTTCTN TGTTTTTACT 60
CAAAATCCAA TAAACAAGG TAGTTTGGCT GTGCAAA 97

SEQ ID NO:5378

SEQUENCE LENGTH:206

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06411

SEQUENCE DESCRIPTION:

25 GATCCCAGAG AGCANCTTCA GTGACAAACA TATCCTTTCA AGACAGAAAG AGACAGGAGA 60
CATGAGTCTT TGCCGGAGGA AAAGCAGCTC AAGAACACAT GTGCANTCAC TGGTGTCAAC 120
CTGGAATAGG CAAGGNATAA CTCTTCTAAC ACAAATAAG TGTTTTATGT TTGGAATAAA 180
GTCANCCTTG TTTCTACTGT TTTAAA 206

30 SEQ ID NO:5379

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06412

35 SEQUENCE DESCRIPTION:

GATCACTTAA ATGATTTTNT GGTGATTGCT GCCATTGCTT TTTTATTTAA AAGAAAATTT 60
TGTAATTAAA TGCCTTTTTC TAAA 84

40 SEQ ID NO:5380

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06413

45 SEQUENCE DESCRIPTION:

GATCACACCA GAGTACATGT CTCTGCCTCT NTTTTCAAGT TGGCITTGGA CAGGAATATA 60
TGAATAANTC ACTGCCATAC AGGTTTCCA ATACACAAGT GCTAGAAAAT ACACACAATT 120
CCCCAAA 127

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SEQ ID NO:5381

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06414

SEQUENCE DESCRIPTION:

GATCAAAAAT GCAACTGAGA AAATNATGGC TCTTGTGCT GAGCTGTCCA TGAAACAAGC 60
 CCTAACCATT GAACTCCAAA AGGAAGTCAG GGAGAAAGAA GACTTCATCT TCACTTGCAA 120
 TTCCAGGATA GAAAAGGTC TGCCACTCAA TAAGGAAATT GAGAAAGANT GGTGAAAGT 180
 CCTTCGAGAT GAAGAAATGC ACGCCTTGGC CATCGCTGAA AAGTCTCAN 229

SEQ ID NO:5382

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06415

SEQUENCE DESCRIPTION:

GATCCCTAAC TGTTCCCTTA TCTGTTTTCT ACCTCCTCCT TTGTTTAATA AAGGCTGAAG 60
 CTTTTGTAA A 71

SEQ ID NO:5383

SEQUENCE LENGTH:235

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06416

SEQUENCE DESCRIPTION:

GATCACTTAC AAATTTTTTG AATAACACAA AATCTCATT TACCTGCAGT TTAATTGGAA 60
 AGATGTGTGT GTGAGAGTAT GTATGTGTGT GTGTGTGTGT GCGTGCACGC 120
 ACGTCTTGAG CAGTCAGCAT TGCACCTNCT NTGGAGAAGG GTATTCCTTT ATNAAAAATCT 180
 TCCTCATNNN NGNTTTGCTT TCAGTTGGTT TTCAATTTNC TCACTGGCCA GAGAN 235

SEQ ID NO:5384

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06417

SEQUENCE DESCRIPTION:

GATCTTCCCT CTTCTGAACA GCAACTCCCC CCAACTCATA CACTGCCGTT TTCAGGGTAA 60
 GCGGCCTTCA CCCCTAAGTG AAAATGTTAG TGAAGTAAAG GAAGGAGCCA TTCTTGGAAC 120
 TGGACGACTT CTGAAAAGTG GAGGACGAGC ATGGGAGCAA GGCCAGGACC ATGACAAGGA 180
 AAATCAGCAC TTTCCCTTGG TGGAGAGCTA GGCCCTGCAT GGCCCCAGCA ATGCAN 236

SEQ ID NO:5385

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06418

SEQUENCE DESCRIPTION:

5 GATCCAGTAC TTGGCAGCCA TAGTTTAGAC AATATTGTTT AGTGCTGTGT TGCTNNCATG 60
TTAACAACAA AACCTTTTAG AGGNCCCACA AATCATNGGT ATNGGACACA GGTCCGAGGN 120
ATTCCAGAGC ATCAN 135

10 SEQ ID NO:5386

SEQUENCE LENGTH:261

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06419

15 SEQUENCE DESCRIPTION:

GATCAGCTCG CACAGAGGTT GTCTGCAAGC AGTGTGAAGC TCATCTAGGT CACGTGTTTC 60
CTGATGGACC TGGGCCCAAT GGTGAGAGGT TTTGCATGAA CAGTGTGGCT TTGAAGTTCA 120
ANTCAAGGGA ACACTGACCA TCTTCAAGAG TCCCGTTCCC TTGCCACCCC TTCACGTGCA 180
CCCTCAATTT CCACAATTCA CTTGAATGAC TTGTNTTATT NGCAATAAAA CTGGGCTGAA 240
20 TTTGCTGCTG TCTCCAAANA N 261

SEQ ID NO:5387

SEQUENCE LENGTH:300

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06420

SEQUENCE DESCRIPTION:

GATCATAGAC ATGATTATAT GTGAGTATCA TTAATCATTG GTTTATAGCA NTTNCTCTTT 60
30 ATTCCAATAT TATAATAATC CNCACTCTAC AATCATAACC TAGGAAAAAC CAGGCCATAC 120
AGAGATAGGA GCCGAGGGGN CATAGTGCGA AGTGGCCAGA AGACAAGAGT GTGAGCCTTC 180
TCTTATGCCT GGACAGGGCC ACCAGAGGGC TTGGTCTAGC AGTAACACCA GTGTCTGGGA 240
AGATGCCTGT TGCAAAGTGG ACCATGGTCT AGCGGGGGGC ATCAGTGTCA NGGTANNGAN 300

35 SEQ ID NO:5388

SEQUENCE LENGTH:299

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS06421

SEQUENCE DESCRIPTION:

GATCAACAGT GGCAATGGAG CTGTGGAGGA CAGAAAGCCA AGTGGACTCA ACGGAGAGGC 60
CAGCAAGTCT CAGGAAATGG TGCATTGTTT GAACAAGGAG TCGTCAGAAA CTCCAGACCA 120
45 GTTTATGNCA GCTGATGAGA CAAGGAACCT GCAGAATGTG GACATGAAGA TTGGGGTGTA 180
ACACCTACAC CATTATCTTG GAAAGAAACA ACCGTTGGAA ACATAACCAT TACAGGGAGC 240
TGGGACACTT AACAGATGCA ATGTGCTACT GATTGTTTCA TTGCGGAATC TTTTITGAN 299

50 SEQ ID NO:5389

SEQUENCE LENGTH:134

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EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06422

SEQUENCE DESCRIPTION:

GATCCACCTG CCTCGGCCTC CCAAGGTGCT GGGATTGCAG GTGTGAGCCA CTGTGCTCGG 60
CCTTATTTAT ATTTTATATA TTGTTGATAT GGTGAATTT ATGTATGCCA TTAATTTATT 120
TGTTTCTATT TAAA 134

SEQ ID NO:5390

SEQUENCE LENGTH:303

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06423

SEQUENCE DESCRIPTION:

GATCAACGTC CTCCATGAGC ATGGNATAGT CCACCGTGAC ATTAAGGTG CCAATATCTT 60
CCTTACCTCA TCTGGTTTAA TCAAAGTGGG AGATTTTGA TGTCAGTAA AGCTCAAAAA 120
CAATGCCAG ACCATGCCTG GTGAAGTGAA CAGCACCTG GGGACAGCAG CATACATGGC 180
ACCTGAAGTC ATCACTCGTG CCAANGGAGA GGGCCATGGG CGTGGGCGG ACATCTGGAG 240
TCTNTGGGTG TGTTGTCATA GAGATNGTGA CTTGGCANGA GGCCTTGGCA TGAGTATGAG 300
NAN 303

SEQ ID NO:5391

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06424

SEQUENCE DESCRIPTION:

GATCCAGAAG AAGTGACCTG AAGTTTCTGT GCAACACTNC AACTAGGCA ATGCCATTTC 60
AATGCATTAC TAAATNACAT TTGTAGTTCC TAGCTCCTCT TAGGAAAACA GTTCTTGTGG 120
CCTTCTATTA AATAGTTTGC ACTTAAA 147

SEQ ID NO:5392

SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06425

SEQUENCE DESCRIPTION:

GATCAATTTC ACAGACAGAT GGNGTGTATG CCCCTCCCAN GTTTGACTTC ACACACACTC 60
ATAACTTTCC AAATGAAGCC CCACAGTATA GGCATATTT TNGATATTT TGTGAATNCC 120
ANNAGGAN 128

SEQ ID NO:5393

SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06426

SEQUENCE DESCRIPTION:

5 GATCCCTAGG AGCTGNCCTN CTTCCAGCCA NTGCCAGGAA CCAGCACTCC ATGAAGATAA 60
 ACTCTGGGCC CGACCACCAG CAGGNCCTGA CGACCTGAGG TGACCCTNGG CCTTTCCCCC 120
 NN 122

SEQ ID NO:5394

10 SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06427

15 SEQUENCE DESCRIPTION:

GATCACAAAT TTTGATATGT GCTATACAGG AAATAAAGTG TTATGATTGA GAATAAA 57

SEQ ID NO:5395

SEQUENCE LENGTH:359

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06428

SEQUENCE DESCRIPTION:

25 GATCTGAAAT CTTCACTAGG TTGATGTGGT TTCCTCTGCA GTGATTTTCC TAGGAAGTTC 60
 AAATTTGACA GCGAGTTCAG CTCAGCTGTG GCCCTCTGCC CTTCCAGCTG TGCCTAGCAA 120
 GCAAAACCCA GGNAAGAAGC AGTNGCCTCC TGGCCTTACA TACAGAAATGC CTGGACAAGA 180
 GAGAACTTGC TCGGGNCTGC TTTGTATTTT AAAACACAGC TTGNGAGTTC AGAGTTGGTG 240
 GTTTGCTCAC TTAGCGGTG TTANGNTGGC TTGAAAAGTT TTCATTATGA TACACTGGGT 300
 30 ACCCTGGGCT TNGAATGTTN NCAACTTNGG NNNATCTNAT GGTACCTNT GATTANNAN 359

SEQ ID NO:5396

SEQUENCE LENGTH:246

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06429

SEQUENCE DESCRIPTION:

40 GATCTACCCA CTCAGCCTC CCAAAGTGCT GGGATTACAG GCATGAGTCA CCACGCCCGG 60
 CCCTGNTTAT CAATCTTCAA TATTTTGTAT TTTGAGCACT TTGTTGGATT TGTTATTTAG 120
 CACATGTATA CATTGTTTAA TTATAATATT GTGTGTAATT TATTTCTGAT TAATTTTATA 180
 TCCTTCCTTC ACATTTCAA TACTTCTAAT TAAAAGCAGA CTGTTCAAAA AANNNNNGNN 240
 NGNNNN 246

45 SEQ ID NO:5397

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS06430

SEQUENCE DESCRIPTION:

55

GATCTGGCTG AGGGCTCAGG ACACAGGCCC AGCCACCCCC AGGGGCCTCC ACAGNCCGCT 60
 GCATGACAGC NATACAGTAC TTAAGTGTCT GTNTAGACAA CCAAAGANTA AATGATTCAT 120
 GGTTTTTTTT AAA 133

SEQ ID NO:5398

SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06431

SEQUENCE DESCRIPTION:

GATCCTGAAC CAAATTTATA GCAATATAAT TAGTGTTTNT CTAAGGCATT ACTCATCAAA 60
 AAAATTGCTG CAGTCTTTAC AGTTGAATAA ATAAAAACAA CTGCATAAAT ATGCCCAAA 119

SEQ ID NO:5399

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06432

SEQUENCE DESCRIPTION:

GATCACCACC TGTAAGAACT GTTCTTCCTC TGTGAACTA ACGGCCTGCT GGTAAATAAA 60
 GTAGCTACCA TTTCTTGAAA 80

SEQ ID NO:5400

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06433

SEQUENCE DESCRIPTION:

GATCACTCAT TGCTAATTTT GTCCTGTACA GCTTATGTAA TATTNNATG GTGGAGACGG 60
 ACTCTGTGTG CTCAGGGCCT TGTCTCTAGG AAGATTTTGT CAATTCCAAA TACAGTTTTG 120
 AAGATTCAAA 130

SEQ ID NO:5401

SEQUENCE LENGTH:379

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06434

SEQUENCE DESCRIPTION:

GATCAACTGA TAAGTTGCCT TATGTCACCA TGGGTTCTGG CTCCTTGGCA GCAATGGCTG 60
 TATTTAAAGA TAAGTTTAGG CCAGACATGG AGGAGGAGGA AGCCAAGAAT CTGGTGAGCG 120
 AANCATCGCA GCTGGCATCT TCAACGACCT GGGCTCCGGA AGCAACATTG ACCTCTGCGT 180
 CATCAGCAAG AACAAGCTGG ATTTTCTCCG NCCATACACA GTGCCCAACA AGAAGGGGAC 240
 CAGGCTTGGC CGGTACAGGT TGTGAGAAAG GGGACTACTG CAGTCTCTAC TGTGAAANTN 300
 ACTCCTCTNG AGATTTGAGG TTNTTGAAG AAACANGTCC AAACAATGGA CCACTTCCTG 360
 AATTGGCATC ANTGGTNN 379

SEQ ID NO:5402

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06435

SEQUENCE DESCRIPTION:

GATCTGTAGT AAACAATGGT GATTTTATTT ATTTNACTC TCTGGAAAAG GAGATAATAC 60
AATTCCAGAA AGTGAAGTCA TATTTCTAAG GTTAAGATTC CCTTTTATTG CACCTAGAAT 120
AGTGCTATGC ACAGAGCGGG TGCTTGAGTT GTTGTCGTTT TNTGTTTGT TTTTAAATGT 180
AAACTGGTAA ATNTTGTGCT TATCTTCAAG GCTAGCTTAN GTATAAAATN GTTTTTTAAA 240
CACTTGNAAG ATTAAGGAT TTGTTTTAAN NANCANNAG GGGNGGTGGT TNGGTNN 297

SEQ ID NO:5403

SEQUENCE LENGTH:294

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06436

SEQUENCE DESCRIPTION:

GATCAATAG TTGCATAGCA GTATATGTNA ATTTGTGTGT TTTAGCTGT GACACAGCTG 60
TGTGATTAAA AGGTATACTT TAGTAGACAT TTATAACTCA AGGATACCTT CTNATTTAAT 120
CNTTTCTTAT TTTTGTACTT TATCATGAAT GCTTTTAGTG TGTGCATAAT AGCTACAGTG 180
CATAGTTGTA GACATGGTAC ATTCTGGGGA AACAACATTT NTNTGTNGCC TTTACTGTTT 240
GATATACCAN ATNANAANAA AATTGGGTCT NATTNCTNAT GCTGGGGCAC CNTN 294

SEQ ID NO:5404

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06437

SEQUENCE DESCRIPTION:

GATCCTCACC NCTTGGAATT AAAATNCTTG TTCACTCAGG CAAGCCTACA GTTTGCAACC 60
AAGTCTAGGG TTTCTGTTAA TCAANGNCGT TTTTCANTT AAA 103

SEQ ID NO:5405

SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06438

SEQUENCE DESCRIPTION:

GATCTGCTGG ACATCATGCC CCATGTCATA GAGAATAAAG CTGATGATTG TACCAGTAAA 60

SEQ ID NO:5406

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06439

SEQUENCE DESCRIPTION:

5 GATCATACCN ATAAAAATAA TNCCAAACAC CAAATATGAA TTTTATGAAT GTACACTTTG 60
TGCTTNACAT TAAAAGAAAN AAACACACAA A 91

SEQ ID NO:5407

SEQUENCE LENGTH:108

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06440

SEQUENCE DESCRIPTION:

15 GATCGTCGCC TGCTGGCTAA GACCAGGGAG CTAAAACTT NAGGAAGGGA ACCTGCCTGG 60
TTGGNTGCTA CTTCTGATTC ATTGTCCTTN TCCCTNTCAT AAGTNCCN 108

SEQ ID NO:5408

SEQUENCE LENGTH:321

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06441

SEQUENCE DESCRIPTION:

25 GATCTTATGT TTAAAGAGAT TCTGTTATTA GCACCATGAA CTCGTACTAT GAAATNTTTA 60
AGCCTTTTAT TTTTCTAACT ATATTACTGT AGGACTGGAT ATTAGGTGTC ATATAGGAAA 120
CACAAAAGTT ATTGCTGTTT GCTAAAGCAA AGTAGCAGAA AATTTTGTAT ATGCAAAACT 180
GTTGAAGGNC CATAGAGAAA TGTGTACTAC TGACGGGGCT TTTACTAGGC TTCCTGCGTG 240
TGTANAAGTC GAGGTTTTGG CTTGGCATTG AGGGTGACAT GGTGGTGCTA AATTGTTTTG 300
30 CNTTTAAAAG GCNTTCTATT N 321

SEQ ID NO:5409

SEQUENCE LENGTH:390

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06442

SEQUENCE DESCRIPTION:

40 GATCCGCAGC AGAAGCTCTT CCCTTCTGTA TCCTATGTAT GCAGTGTGCT TTNCTTGCC 60
AGCTTGGGGC ATTCTTGCTT AGACAGTCAG CATTGTGCTC CNCCTTTAAC TGAGTCATCA 120
TCTTAGTCCA ACTAATGCAG TCGATACAAT GCGTAGATAG AAGAAGCCCC ACGGGAGCCA 180
GGATGGGACT GGTGCTGGTT TGTGCTTTTC TCCAAGTCAG CACCCAAAGG TCANTGCACA 240
GAGACNCCGN GTGGGTGAGC GCTNGCTTCT CAAACGGNCG AAGTTGCCTC TTTTAGGNAT 300
CTCTTTTGGG ATTTGGGAGC ACGATGNCTC TNGAGTTTGA GCTATTAAAG NACTNCTTGG 360
45 CACATTAANA AAANANAAAT GNGGTNNGNN 390

SEQ ID NO:5410

SEQUENCE LENGTH:197

50 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS06443

SEQUENCE DESCRIPTION:

5 GATCCCAGGG AAATATCAGC CTTGGGCAAC TGCAGTGACC AGGGGCACCG GCTGCCCACA 60
GGGAACACAT TCCTTTGCTG GGGTTCAGCG CCTCTNCTGG GGCTGGAAGT GCCAAAGCCT 120
GGGGCAAAGC TGTTTTTCAG CCACACTGAA CCCAATTACA CACAGCGGGA GAACGCAGTA 180
AACAGCTTTC CCACAAA 197

10

SEQ ID NO:5411

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS06444

SEQUENCE DESCRIPTION:

GATCTTCAAG TGAACATCTC TTGCCCTGAT TGAAGGCTTT GCCACATGCT GGAAGGCCCC 60
CTCCCAGGAA GATGGGGGTC ATTAAGGAA ACTNAACATT GAAA 104

20

SEQ ID NO:5412

SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25

CLONE:HUMGS06445

SEQUENCE DESCRIPTION:

30 GATCACCTGA ACAATCTAGA TGTGGACAAA ACCATTGGGA CCTAGTTTAT TATTTGGTTA 60
TTGATAAAGC AAAGCTAACT GTGTGTTTAG AAGGCACTGT AACTGGTAGC TAGTTCTTGA 120
TTCAATAGAA AAATGCAGCA AACTTTTAAT AACAGTCTCT CTACATGACT TAAGGAACTT 180
ATCTATGGAT ATTAGTAACA TTTTCTACC NNGNNGTCCG TAATAAACCA TACTTGCTCG 240
TAAA 244

35

SEQ ID NO:5413

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06446

SEQUENCE DESCRIPTION:

40 GATCTNAGAA AANGCACCAC GTNAGCTTAC TAANTNATAA TATCTGTTTC TACTACGGAT 60
TTAGGCAACA GGACCTGTAC ATTGTCACAT TGCATTATTT TTCTTCAAGC GTTAATAAAA 120
GTTTTAAATA AATGGCAAA 139

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SEQ ID NO:5414

SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06447

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SEQUENCE DESCRIPTION:

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GATCGGGGTC CATGGGCCCA CCACCCCTG CAAGGAGGTC TCCATGAAGC ATGTAGGCAA 60
 CCAGCAATAC AACGTCACAT ACGTCGTCAA GGAGAGGGGC GATTATNTNC TGGCTGTGAA 120
 GTGGGGGGAG GAACACATAC CTGGCAGCCC TTTTCATGTC ACAGTGCCTT AAAACAGTTT 180
 TCTCAAATCC TGGAAA 196

SEQ ID NO:5415

SEQUENCE LENGTH:69

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06448

SEQUENCE DESCRIPTION:

GATCATTAA TCTGCTAATT GGTGCCTAT GAAATCACAT TGTCTGTTAT TAAAGCTTTT 60
 TACCATAAA 69

SEQ ID NO:5416

SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06449

SEQUENCE DESCRIPTION:

GATCTAGTAA AGTGTTTTAG AACCCCTTTT TATCCCATGC ACCATTCACT AACATAAAA 60
 ATCACAATTC TGCTAATGTC ATTTGGAAT TCAAAATAAA TATCTTGTCT AAAAACAAA 119

SEQ ID NO:5417

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06450

SEQUENCE DESCRIPTION:

GATCATTGCA TGAATAGAAT CAAGGAGCTC ACTCAGAGTG AACTTNAATT ATNACTTTNN 60
 AGGCTCATTT GTACTCTCTT CCCCTCTCAT CGTCATGGTC AGGCTCTGAT ACCTGCTTNN 120
 AAAATGGAGC TAGAATGCTT GCTGGATTGA AAGGGAGTGC CTATCTATAT TTAGCAAGAG 180
 ACACTATTAC CAAAGATTGT NGGTTAGGCC AGATTGACAC CTATTNTNG NCNNTATGCG 240
 TATATTNCC TGTGCTATAT ATGAAAANTA ATTGCATGAT TTCTCATTCC TGNGTCATTT 300
 CTCAGNGN 308

SEQ ID NO:5418

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06451

SEQUENCE DESCRIPTION:

GATCTGAAGG GAGAAGGTGA TATTCATGAA AATGTGGACA CAGACTTGCC AGGCAGCCTG 60
 GGGCAGAGTG AAGAGAAGCC CGTGCTGCT GCGNCTGTGC CCAGCCCGGT GGGCCCGGCC 120
 CCAGTGCCAT CCAGAAGAAA TCCCCCTGGC GGCAAGTCCA GCCTCGTNTT GGGTTAGCTC 180

TGACTGTCCT GAACGCTGTC GTTCTGTCGT TTCCTCCAT GCTTGTGAAC TGCACAACTT 240
 GAGCCTGACT GTACATNTT TGGATTGTT TCATTANAAA GAAGCACTTT AAA 293

5

SEQ ID NO:5419
 SEQUENCE LENGTH:180
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06452

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SEQUENCE DESCRIPTION:
 GATCCTGGNA CATTCATAA GCTTGGGTAA AAAAATTTT TGTTATNNTC CATGCACAAT 60
 AAGGGAAATG TTTAATTGG CTTTGNCCCT CCTGCTTAC AACAGTTCTG GCCTCAAGTT 120
 ACCAGGTAGC CTGAACCTTG NTTTTATTTT ACCATTAANT TGCTTTAATA CCATNGTAAA 180

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SEQ ID NO:5420
 SEQUENCE LENGTH:99
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06453

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SEQUENCE DESCRIPTION:
 GATCACTTGA GCCCANGTTG AGGTTGAGGC TGCAGTGAAC TATNATTGTA CCACTGCACT 60
 TCAGCCTGGG CAACAAAGGA AGACCCCACT TCTGGGAAA 99

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SEQ ID NO:5421
 SEQUENCE LENGTH:209
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06454

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SEQUENCE DESCRIPTION:
 GATCCCTGCA TTNCCTGAAG ATNTTTAAAC GTGAGAGTNT GGTAGGCAAA GCAGTCTGAG 60
 AAAGAAATAG GAAATGCAGA AATAGGTTTT TTTTGGTTGC ATATAATCTT TGCNCTTTTT 120
 AAGCTCTGTG AGCTCTGAAA TATATTTTNG GNTTACTTCA GTGTGTTTGA CAAGACAGCT 180
 TGATATTNCT NTCAAACAAA TGACTNNGN 209

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SEQ ID NO:5422
 SEQUENCE LENGTH:246
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06455

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SEQUENCE DESCRIPTION:
 GATCCAGTGG AAAAAAGAGG GGAAACTATG GGAGTCCCA ATTAACAATG AAGCAGGTTT 60
 TGATGATGAT GGTTCAGANT TTCATGAACA TATATTTNTG GAGAAACACC TGGAGAGCTT 120
 TCCAAAACAA GGACCAATTC GCCACTTCAT GGAGCTGGTG ACTTGTGGCC TTTCCAAAAN 180
 CCCATATCTT AGTGTTAAAC AGNNGGTTGA NCACATNGAG TGGTTTAGAN ATTNTTTTNA 240
 TGNAN 246

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5 SEQ ID NO:5423
 SEQUENCE LENGTH:105
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06456
 SEQUENCE DESCRIPTION:
 10 GATCTGCTCA GAAAGGAAGA GGCAGGCGCC AGGGNGAACC CCCTTCGTCG NTTTGTAACC 60
 CTCCTNTAA GGTGAAGCCC TTTNCTTGC TAAACCGGN AATTN 105

15 SEQ ID NO:5424
 SEQUENCE LENGTH:159
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06457
 SEQUENCE DESCRIPTION:
 20 GATCCTGGGG GTCGTGGCTA CCCCGTCCTC GTGGCCGNNC TCCTTGCTGC TCCTGTCAAT 60
 AGTGAGCTTG TGCCGTCCCN CTAGGATGGG GGCATGGCCN TGGGCTGCCA GATGCCCACA 120
 GCACCCTGGC ATGACCTNCC ACCTNGGGTT CCANACCGN 159

25 SEQ ID NO:5425
 SEQUENCE LENGTH:211
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06458
 SEQUENCE DESCRIPTION:
 30 GATCACCTAT CCCCTGTTTC AACAAATGAAT AAGGAACAGC AAATNTTTGA GACGTGCCCT 60
 GAAACTGAAC AGAGATGCAC TCTCCAGTGA CTCCCAGCA AACACAAGGT GCAGCAGGGT 120
 CCCAAAGGTA GCTGGNTGGC TGANCTGCTG GNTATGGGAG ATACATGACG CGAAGACGGN 180
 TTTNACATCC ACAGGGCGGT NTTNANGAAA N 211

35 SEQ ID NO:5426
 SEQUENCE LENGTH:66
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06459
 SEQUENCE DESCRIPTION:
 40 GATCCACCAC AGGGTTAGGG GACAGGAAGC CTGTTCTATT CTCAATAAAT CTTACAAAAT 60
 TCCAAA 66

45 SEQ ID NO:5427
 SEQUENCE LENGTH:189
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06460
 SEQUENCE DESCRIPTION:
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GATCATTATT TCCATTCTTA ATGTGAAAAA AAGTAATTAT TTATACTTAT TATAAAAAGT 60
 ATTTGAAATT TGCACATTTA ATTGTCCCTA ATAGAAAGCC ACCTATTCTT TGTGGGATT 120
 CTTCAAGTTT TTCTAAATAA ATGTAACCTT TCACAAGAGT CAACATTAAA AAATAAATTA 180
 TTTAAGAAA 189

SEQ ID NO:5428

SEQUENCE LENGTH:193

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06461

SEQUENCE DESCRIPTION:

GATCTAGACA TGCCTTAGGT AACTGCAGAA ATAGCAAATT AAATNATTAA TGAGCTTATT 60
 AGTCATAGTA AACATACAGA TTCCTANTTC TATGACAGTG TACATNTATG ANAATAAATG 120
 ATGAAAAAAG AACTATAGTA TTTTAAAAA TATGCTTTTA TTTNTATTNC ACATAGTGNA 180
 AAGTCTACA NAN 193

SEQ ID NO:5429

SEQUENCE LENGTH:270

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06462

SEQUENCE DESCRIPTION:

GATCACATTT CTGGGAAGAT GAGANCTNNT TTCCAGACCA GCATCCAGTG GCCATCAGGT 60
 CTTGTGGCCC AAAGGCTATG CTTGCCCTCG GCTGAGTGCC TGGNATAGGC CTTNCTATG 120
 TCTCCCAAG GCTGGGGTGC TGAGCCTGCC TTCCTCACCA CCTAGCCATA GTCTCAAACC 180
 TGTGGGGAAG GNGGNNTTCT CCCTGCCCGG GAAGAGGACA GATAACTGAT TTCCGTTCTT 240
 TTGACTGTGT TTTAAATTC TCTTTCTAAA 270

SEQ ID NO:5430

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06463

SEQUENCE DESCRIPTION:

GATCTCCTGG GACTCCGAGC AAGGCCTGCA CGAGAGAGGG CTGAAAGGCT GCTGGGGCTG 60
 CCACCTCGCT ATTCCGCGAT AAGCATCTGC CCCCACCCC TTGACCTTC ATCTGATGGA 120
 CATTTTATA CAGAAAACAA TAAAGATTTC CCTCTCAGCA AA 162

SEQ ID NO:5431

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06464

SEQUENCE DESCRIPTION:

GATCAGTTGT ACTAGAGGAA CATCATAGAA GAGAAAAATC CAACTCTTTA TATTAATAAT 60

NAATACAATA AGAAAATTGC AAA

83

5 SEQ ID NO:5432
 SEQUENCE LENGTH:168
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06465

10 SEQUENCE DESCRIPTION:
 GATCTGCAAG CCCTGCTGTA CAAGAAAATC ATTAAGGAAC ATTTGGAGAG TTAGCTACTA 60
 GCTGCCTAAG TGTGCACTTT CAATCTAACT GTGAAAGAAT CTTCTGATGT TTGTATTATC 120
 CTNCTTATAT TATATTANCA AAATAAATCA AGTTGTGGTA TAGTCAAA 168

15 SEQ ID NO:5433
 SEQUENCE LENGTH:357
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

20 CLONE:HUMGS06466

SEQUENCE DESCRIPTION:
 GATCCACCCA CCTTGGCCTC CCAAGGTGCT GGGATTGCAT GCATGAGCCA CTGCACCCAG 60
 CCAAGATACA TTGTTGACGT GAAAAAAAAA TTTCAAGATA TATAGAACAG TGTAACATG 120
 CATCCAATTG TGTTTTTCAN GGAGAAAATA ATGTATACTT GTATTGGTTT ACGTATGAAA 180
 CAAAANTATC TAGAAGGATG AATAAAAATC TAGTAACTGA TTNTACACTA GGGCAAATTG 240
 GAAACAANTG GGNGACTTCA TGGATGACTT TTTTATATTT GTAAAGTGGG NGTGANTGTN 300
 TTACTTATTC CACCAGTTAN GTTGAAACCT TTNNNNGGNA GGTTNGTGGT GNTTNTN 357

30 SEQ ID NO:5434
 SEQUENCE LENGTH:175
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

35 CLONE:HUMGS06468

SEQUENCE DESCRIPTION:
 GATCAGATGG CTTAGAGAAA TTNCTGGAAT ATTCACATTC GAAGATTCCT TATTAATNAA 60
 TGTCTTTNAC TTAATCTAA CCAAAAACTG CAACATTATT CTTTGTACAT TTNCATTATA 120
 TAGTGTTAAC AAGCTTAGTT GCANACAANT AAAATACTTA AGCTATTTGT TTAAA 175

40 SEQ ID NO:5435
 SEQUENCE LENGTH:218
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

45 CLONE:HUMGS06469

SEQUENCE DESCRIPTION:
 GATCTGGTGA AACTNGCTAA ACGNCTCAAG AAGGAGAAAG TTAATNTTGA CATTATCAAT 60
 TTTNGGGAAG AGGAGGTGAA CNCAGAAAAG CTGACAGCCT TTGTAACAC GTTGAATGGC 120
 AAANATGGAA CCGGTTCTCA TCTGGTGACA GTGCCTCCTG GGCCCAAGTTT GGCTGATGCT 180
 NTCATCAGTN CTCCGATTTT GGCTGGTGAA GGTGGNNN 218

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SEQ ID NO:5436

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06470

SEQUENCE DESCRIPTION:

GATCACAGTG GGCAGCCGGC ACCCNGCACC ACTTTGGCGA GCGTCCTGCT TCCGNCCTCG 60
 CCCTCATCTA CGCTGCTCCG CTTTCCTCAG ACCCCTTTT GCCGTGCAA GGAATTCTT 120
 GACATTAAAT AAAAGGTATC CAGNTTGCAG AAA 153

SEQ ID NO:5437

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06471

SEQUENCE DESCRIPTION:

GATCAGTTGG GTGCACGAGT GGGTTACATC GAACTGGATT ATAGGAAGCT TATAACAAGA 60
 ATGGAAGATT CTAAATAAC TCACTTTCTT TGGNATCCAG TAACAGTAGA TGTCAAAAT 120
 ATGTAGCTGA TTAATACCAG CATTGTGAAC GCTGTACAGC CTTGTGGTTA TTAATAAGCA 180
 AGTTACTACT AGCTTCTGAA AAGTAGCTTC ANAATTAATG GTTATTNTA NACTGCCCTT 240
 CCNTGGCTGN TACTTTNCCC TAAGNTNAAT CTNCGAGAAT CTGAAATGNT TNCTNCANTT 300
 NTCAGGGAGN 310

SEQ ID NO:5438

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06472

SEQUENCE DESCRIPTION:

GATCACATTN GATNAAAGAG CAAAACCTGT TAAGTCCAAA ATAAATTCTT ACTGTTTATA 60
 TCCTAAA 67

SEQ ID NO:5439

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06473

SEQUENCE DESCRIPTION:

GATCCACAGA AGTCCTGGT GGTATTTGTA ACTTTTGCA AGGCATTTT TTATATATAT 60
 TTTTGTGCAC ATTTTTTTT ACGNTTCTT AGAAAACAAA TGTATTCAA ANGTATATTG 120
 ATAGTCGANC AATTCATATA TTTGAGGTGG AGCCATATGA ATGTCAGTAG TTTATACTTC 180
 TCTATTATCT CAAACTACTG GCAATTTGTA AAGCNATATA TATGNTATAT AAAGGTGATT 240
 GCNGCNTTNC ANTGTAGCC CCNGTGNN 268

SEQ ID NO:5440

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06474

SEQUENCE DESCRIPTION:

GATCCAGGCT CAGAACTTCT TCTCCAGCTT CACCCTGATG AAGCTGAGGC ACTCCTCCGC 60
 TCTGGGTGGG GCCAGCCTAG GGGCCAGGCA CATCGGGCAC CTNCTCCCCA TGGACTATAG 120
 CGCCAATGCC ATTGCCTTCT ATTCTACAC CTNTTCCTAG GGGGCTGGTC CCGGGCTCCA 180
 CCNGGTCCAA GCTCAGTGA CACTGGGTCT GAAAGGAAGG AGTCTTTTGN TTCCTTTCTC 240
 CTNTTTACAN GAACAAACAT AGATGGTAAA TAAATNNACT TTNTCCNNCT CCCCAGAANN 300
 NAATNN 306

SEQ ID NO:5441

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06475

SEQUENCE DESCRIPTION:

GATCAGGTAC ATAAACGGC CTGAGTGCTG TTTTAAACAG CNCTTGGGTG ATGGTACAAC 60
 ATNACTTTTT AAGATAATNA NGTAGTAAAA GTTCTAGTG GAAACATGAA A 111

SEQ ID NO:5442

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06476

SEQUENCE DESCRIPTION:

GATCCCAACA TTTTGGCAG TGAGCATTAC GATGTTANCC GTGGGGTGCA AAANATCTGA 60
 ATAAATTTA CAAAAGGAGA ATTCAGACAG ACCAACCTGG GTNATGTGTT TCAAGCTCTG 120
 CCCAGGAGC TTGAATGTCT NTNCCTNGTG GCAGGAGCAT TCCTAGAGAC TGGTGCATCA 180
 GGTTTTATGT TGTGTCTCT CTGCTCCAGC TCACCCNTNA AANCTCTNCC CTNGGATGTT 240
 GGAATCANA TTCTN 255

SEQ ID NO:5443

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06477

SEQUENCE DESCRIPTION:

GATCCCATAA AGCTACGAGG GGGACGGGAG AGGGCAGTGC AATGGGAAGT AAAGAGATAT 60
 TTNCCAGTAG GAAAAGCAAT GCTTCTTGT CTTTAGACTC AAATGCTTAG GGAACGTTTC 120
 ATTTCTCATT CATGGGAAA GGCAGCCTCC TTAAATGTTT NCTGAAGAGC GGTAAAAATCT 180
 AGAAGCTTAA GANTTTNCAG TTCCTTCAAT AACCATGATG ACCTGAAGTN CACCTATCCC 240
 ATTTAGCAT CTNCTTGTTT TNCCCATCTC TNCCTTTCCA ATTTNCTTA TNCTGCTGTA 300

ATATTTTGT AAA

313

SEQ ID NO:5444

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06478

SEQUENCE DESCRIPTION:

GATCAGCTCA CACCCAGTCT CTCACAAGTN TTCATTCCAT AAAAGTGGTT GACTAAAGTG 60
 AATATGTCCA TAGTGGGGTC TTTAATCCC TCTGGTCTTA CCANGGGTTA GANGTCTNTN 120
 GGTNTAACT TTTCCATATT GTTAGAACAT CATGGNGACA TCATGTNCAT CTGTTCAAAA 180
 TTACAAGAGG CTTTNCAG CTCTACCATG CTTGNAN 218

SEQ ID NO:5445

SEQUENCE LENGTH:256

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06481

SEQUENCE DESCRIPTION:

GATCATTGTG AAGGCAGGGG AATGTATGTG CACATCTGTT TTGTAAGTGT TTAGATGAAT 60
 GTCAGTTGTT ATTNATTGAA ATNATTTAC AGTGTGTGGT CAACATTTCT CATGTNGAAA 120
 CNTTAAGANC TAAAATGNTC TAAATATCCC TTGGACATTT NATGTCTTTC TTGTAAGGCA 180
 TACTGCCTTG TTTAATGGTA GTTTTACAGT GTTCTGGCT TNGANCAAAG GGGCTTAATT 240
 ATTGATGNNT NGGATN 256

SEQ ID NO:5446

SEQUENCE LENGTH:344

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06482

SEQUENCE DESCRIPTION:

GATCCGGAAG CGAATTCATC TCCGAGCTGA GGATNCCTTG TTTTNTTTG TCAACAATGT 60
 CATTCCACCC ACCAGTGCCA CAATGGGTCA GCTNNACCAG GAACACCATG AAGAAGACTT 120
 CTTTCTCTAC ATTGCCTACA GTGACGAAAG TGTCTACGGT CTGTGAAGCT GCTGCCCTG 180
 AGCTGGAGGG GGGTCTCATT CTACAAAGAG AGAGGTGGCC CCCCTTTCTT GACCTGCTCC 240
 TCCTTCAAGC TTAACANCA CCTCCTTATT CAGGACCGGC ACTTCTTAAT GTTTGTGGG 300
 CTTTCINTCC AGCTNTCTT NGGNGGGGTA ATGGGTNGGA GTTN 344

SEQ ID NO:5447

SEQUENCE LENGTH:334

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06483

SEQUENCE DESCRIPTION:

GATCTTTCTA GGAGGGAGAC ACTGGCCCCT CAAATCGTCC AGCGACCTTC CTCATCCACC 60

5 CNATCCCTCC CCAGTTCATT GCACTTTGAT TAGCAGCGGA ACAAGGAGTC AGACATTTTA 120
 AGATGGTGGC AGTAGAGGCT ATGGACAGGG CATGNCACGT GGGTCATAT GGGNCTNAGA 180
 GTAGTTGTCT TTCCTGGCAC TAACGTTGAG CNCCTGGAGG CACTGAAGTG CTTAGTGTNC 240
 TNGGAGTATT GGGGTCTGAC CCCAAACAAC TTTCAGNTTC NNTAACATAC TGGGNCTTGA 300
 CTGTTTTNTC TNGGTNCCNN ATGGGTCCTG GTTN 334

10 SEQ ID NO:5448
 SEQUENCE LENGTH:80
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06484
 SEQUENCE DESCRIPTION:
 15 GATCTAGAAA GCCCTAAGCT CTCACCACTG GCTACCTTGA GCCTCTACAG AATNAGGAAG 60
 TAAAGTCTAA GGCAGTAAA 80

20 SEQ ID NO:5449
 SEQUENCE LENGTH:147
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06485
 SEQUENCE DESCRIPTION:
 25 GATCCCANCT CCGAAGACGG AGAGGAGGGA AATGGGGCCC TTCCCTCT ATTGCATCCC 60
 CCTGCCGNC TCCTTCCCCG CACCCACGTG CCCTAGATTG ATGGCAGAAA ATGNCCAAAT 120
 CCNGGTATT TGTTGTANAT ANTAAAN 147

30 SEQ ID NO:5450
 SEQUENCE LENGTH:109
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06486
 SEQUENCE DESCRIPTION:
 35 GATCATTGTA TATNACACAC ATGTATCAAA GTATCACATG TACTCCAAAT GTTTGTACAA 60
 CTATNATATA TCATTAATAA AATACAAANT AAAAAATGTA GCTATGAAA 109

40 SEQ ID NO:5451
 SEQUENCE LENGTH:274
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06487
 SEQUENCE DESCRIPTION:
 45 GATCCAGTGT GCAGAAGAGC CAGCAGGGAA CCGGAAGCTC TNATGTCAAG GCCAGAGCAG 60
 TTGAGANTGG GNCCCAGAGT AGATGCTGAC CTGGGCACTC CACCATTCGG GGGCCACCAC 120
 AGAGATGCCA GCAGGATGCC ACTTTNCCAG CCCGACACAC GGACCTTTNT AAAGANCAGC 180
 AACAGGCAGG AGAGGCAGCG TNTGNCCAGA TTGTTTCCCG TCATTGGGTG GCATNTGTTA 240
 50 NCTAGCTGNC AAACANCTTC ANCCCGTGA ATTN 274

55

SEQ ID NO:5452

SEQUENCE LENGTH:183

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06488

SEQUENCE DESCRIPTION:

GATCACGGCT CTTTTAAGC CCTGGCAGCA TTTTGGTCCC TGCTCCTTGC CCATAGTAAA 60
 ACAGCTTGAA ATATCCCATG CAAGAGAGTA GTTCAAGTG GGCAACTCTG CTCTCTATTT 120
 AAAAGCGTGC ACAATCAAAA GTACTATGCA ATTTTAGGAC AATAAAGANC ATACAGTTTT 180
 AAA 183

SEQ ID NO:5453

SEQUENCE LENGTH:215

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06489

SEQUENCE DESCRIPTION:

GATCACCAGT GGGCACTAGA TGATGTNGAA GAAGAGCTCA TGGCCAAANA CCTCCACTTC 60
 GAAGGCATGT TCAAAAAGGA ATTACAGACC TCTATTTTTT GAAGACCGAG CAGGGATTAG 120
 CTGTGTCAGG AACTTGGAGT TGCACCTAAC CTTGTAACTT TGTTTGGAGC TGGCACCTCT 180
 TGAAATAAAA AGGGAGGNTG CACGAGCTGG GCAAA 215

SEQ ID NO:5454

SEQUENCE LENGTH:70

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06490

SEQUENCE DESCRIPTION:

GATCAAAAAA TTCAATTNC TACAAGTTCT NCTATCTGAA ATAAATAACA GACTCATTTT 60
 TGACAATAAA 70

SEQ ID NO:5455

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06491

SEQUENCE DESCRIPTION:

GATCANGTA GTGGTGTCTG TCAGCTGTCT AAGAGTTGG AGAATNAACT ACTCAAGATA 60
 GTCACGAAAA NACTGAAAGT TTNATTTTCC TTTCCATATT TAAN 104

SEQ ID NO:5456

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06492

SEQUENCE DESCRIPTION:

5 GATCCCAGTT ATCCTTGNAT CCATGTAATT TCAGATGAAT TATTAAGCAA ACATTTTAAA 60
 GTGAATTCAT TATTA AAAAC TATTCATTTT TTCCTTTGG CCATAAATCC NCTAATTNTC 120
 ATTA AAAATC TAAGGTCATT TCAACTGTTT TAAGCTGTAT TNCTTTAATT CTGCTTACTA 180
 TTTTCATGGAA AAAANTAAAT TTNTCAATTT TAAA 214

SEQ ID NO:5457

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SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06493

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SEQUENCE DESCRIPTION:

GATCCAGAAT AACTTCTCCC ACTCATATCT NCAGTTCACC NAATGAAATN AATGGATAGC 60
 AAGAGCCCNT TGTTCACAGG ACTTTAAGGC AAAATATTAA AANTN 105

SEQ ID NO:5458

20

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06496

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SEQUENCE DESCRIPTION:

GATCCTTTTA TAAATTTAAA AAATTTAATG TTAATAAAGC GAGGTGTAAT TGTA AA 56

SEQ ID NO:5459

30

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06498

35

SEQUENCE DESCRIPTION:

GATCCGNGAA AGGCTGAAA GGCAGGAAGA CAGCCTAGCC TCTNCAGTGG ATGCTGCCAC 60
 CGNACAAAAG ACCTGTNACT CCGACTGAGG CATGNCCTGC CCN 103

SEQ ID NO:5460

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SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06499

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SEQUENCE DESCRIPTION:

GATCNTGGAT NTAGAAGAGG TNACATTGCA CAATGTTTGA ATAAGGAAAC TATTGGAAAG 60
 TTTTCCAAG CTGACATTGC AGAAAATGCT TTGNA AAAT CCTCAGAAAC AGAAATACCT 120
 ACTGTCAGCG TTTAGCTGA TGAAGANTTC CTTCCCTNCA AAGAAAATAC ATTTGACCTG 180
 GTGGTNNGCN 190

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SEQ ID NO:5461

55

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06500

SEQUENCE DESCRIPTION:

GATCCCGCCC ACTCAGAAAA GGCGAGAAGG CTTTGTAAAT TTCTACATGA ATCAAACACA 60

GAAACAACCTT TTGGAGAAAT TAAATTCTGA GTGTNACTTC TGA AAA 105

SEQ ID NO:5462

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06501

SEQUENCE DESCRIPTION:

GATCTTCTTC ACACCAAGCT CTGTTTACAT TCCGAGAGTT GTCATGAAGA AAGTNCTNNT 60

CAATAAGNTT TTGGAATGTT AAA 83

SEQ ID NO:5463

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06502

SEQUENCE DESCRIPTION:

GATCAGGACA CGAGGAAGAG TAAATGTGAG ACAGTCAATG TGACTTCTGC GATAAACAGA 60

TTTTTAAACC CCGAAATTTT GCAAAATTTT GGTGAACCTG ANCTTNCITC GTTGCAATG 120

CTGGCACTAT CTGTACCATC ATACANCTGT CTCACATTAA AGCTATTTTC CTTGGGCAAA 180

SEQ ID NO:5464

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06503

SEQUENCE DESCRIPTION:

GATCATCTCC CCTGGCAACG TGACTCTGTT TTTTGTGTGT GTTTCATGC TGACTAGTCC 60

CCTACTGTTA ATATCACTAC TAATTAGGCT ATAACCAGGT CTTTCCTGGC CTGAGAAATA 120

TTCTCTTAAA ATNACCTTG TTTTAATCTC ATTCATGATG TTGATTTTTT TTCAATGTGG 180

TGCAATATAT ACANTAAAAAN TNGTCATANC TAAA 214

SEQ ID NO:5465

SEQUENCE LENGTH:186

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06504

SEQUENCE DESCRIPTION:

GATCTGTCCA GGGAGGTGGC TGAAGAGTGG GCATCTCCCT TAGGGACTCT ACTCAGCACT 60

CCATTCTGTG CCACCTGTGG GGTCTTCTGT CCTAGATTCT GTCACATCGG CATTGGTCCC 120
 TGCCCTATGC CCCTGACTCT GGATTTGTNA TCTGTAAAC TGGAGTAAAA ACCTCAGTCG 180
 TGTAAA 186

SEQ ID NO:5466

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06505

SEQUENCE DESCRIPTION:

GATCTTTGCT TCCTTCTAT TATGTTTGT CACAACACCT AAAACCAGTT TTGCTGCTAT 60
 ANTTCTATAC TGTGATTCTG TCTGCNANNT ATCTGTAACC AAATAAACAT AATAGGN 117

SEQ ID NO:5467

SEQUENCE LENGTH:309

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06506

SEQUENCE DESCRIPTION:

GATCCAAACC AAAGACTGTA GAACCCTGGG GTGTGGCTAA CTGGCCCN TN CNGCACCCGT 60
 AGCCAGGTCT TCCTGGCCCT TNAGGCTGGG CTGGCGGACA GGCACCTNCC TGTTCCTTAA 120
 GCTGAAGCTC CCACACTGTC TTCCAGGGCT GAGGAGATGC TCTCCTTTTC TACTGACCAT 180
 CTTGATACTT ATTTATACGA GAGNCAGTTG CTGGACGGGG TAGTACTGGG AAGCAGGAGG 240
 CAGAATGGCT CTGCTGAGCC TNCNACCCAT GGNC AACANC CTAATAAAAC AGANCATTTC 300
 AGAGCCAAA 309

SEQ ID NO:5468

SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06507

SEQUENCE DESCRIPTION:

GATCCCATAC CAGAAGATGA GAAAAAGAA TAAGTGTTCG CTTGTTTTGT GTGTTCTAAA 60
 TACTTTTTNT AATGAAAAAA TGNTTTTTNG TTTTAAA 97

SEQ ID NO:5469

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06508

SEQUENCE DESCRIPTION:

GATCATCTAA ACTAAGTCCA GCTGCCTAAT TCTAGATATA TATATATATA TAGAGNTCCA 60
 CCATAAA 67

SEQ ID NO:5470

SEQUENCE LENGTH:72

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06509

SEQUENCE DESCRIPTION:

GATCTTGGGA AGTATTCCCA AGGAAAACAG TCCTGGGCAC AGTCTCCAAA ATAAATTCTN 60
 AATTTTGGGA AA 72

SEQ ID NO:5471

SEQUENCE LENGTH:467

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06510

SEQUENCE DESCRIPTION:

GATCCCATGG CTTTCTTTAC TGGGCTCTGG GGCCCTTCA CCTGTGTAAG CAGAGTGCTG 60
 AGCCATCACT GTTTCAGCAC CACTGGGAGT CTGAGTGCGA TTCAGAAGAT NACGCCGGTA 120
 CGAGTGGTGG ACAACAGTGC CCTGGGGAAC AGCCCATACC ATCGGGCTCC TCGCTNCATC 180
 CATGTCTATA AGAAGAATGG AGTGGGCAAG GTGGGCGACC AGATACTACT GGCCATCAAG 240
 GGACAGAAGA AAAAGGCGCT CATTGTGGGG CACTGCATGC CTGGCCCCCG AATGACCCCC 300
 AGATTGACT NCAACANCGT GGTCTCATT GAGGNAACG GGGAAACCCTN TNGNGACAN 360
 GTATTNAAGA CACNGTNCCC ACCTAGGCTG TGGNAGGGTG AAGGGCGAGT TTTCCCAAGN 420
 TGGTGGGCCT TNGTTNAGAN CTTTGTGTTG NGTTTGGNNC NNGNTAN 467

SEQ ID NO:5472

SEQUENCE LENGTH:327

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06511

SEQUENCE DESCRIPTION:

GATCTTAACT NTCTTGACTG ATTTAAAAAG CTAATCAATT TATTAAGCC AGANATGTNC 60
 TCCTCTGGGA AAGCAATTC TATCTATTTA TCTACCAATC CCCACTCACA TATATATGTT 120
 TGTNTTTACA TAGAGATAGA TGGTTTAAAG GGTTCCTA TTGTTAAATT ATTTCTAAG 180
 ACATTGTGGG NTGGAGACCA CTAACTTAT AAAAAACCAA GGAAAGTAAA GTTTTNCAAA 240
 TGTTTATACT GTTTAAGGTG TTTATTTATN TAANCCATGC ATGGGGTNNC ATGCATAANT 300
 NNNNGGGTTT AAATTCACC AGTGANN 327

SEQ ID NO:5473

SEQUENCE LENGTH:70

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06512

SEQUENCE DESCRIPTION:

GATCAAGGAA CTTGTGCCTG TCTATAGATT TTATTTCCCC TGTACAAATA AACTTGGCTG 60
 CAATCCCAAA 70

SEQ ID NO:5474

SEQUENCE LENGTH:414

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06513

SEQUENCE DESCRIPTION:

GATCTTGCAA GACTAAAATT GGCCATTAAG TACCGTCAA AAGAGTTTGT TGCCCAGCCC 60
 AATTGTCAAC AGCTGCTGGC ATCTCGCTGG TACGATGAGT TTCCAGGCTG GAGGAGAAGA 120
 CACTGGGCAG TGAAGATGGT GACATGTTTC ATAATAGGAC TTCTTTTCC TGTCTTCTCT 180
 GTGTGCTACC TGATAGCTCC CAAAAGCCCA CTGGGACTGT TCATCAGGAA GCCATTTATC 240
 AAGTTTATCT GNCACACAGC CTNCTATTTG ACTTTTTTGT TCCTGNTGNT GCTTGCCTCT 300
 CAGGACATAG GCAGGTCAGG NNTGANCNGG GAAGGTCCAC CACCACATC GTCGAGTGGA 360
 TGATATTGNC NTGGGTNCTN GGNNNATGTG TTANNTAGGA AATGTNATAA ANCN 414

SEQ ID NO:5475

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06514

SEQUENCE DESCRIPTION:

GATCAACAAT NAGCATCAA TCTATGGCTC CTGGCTCCAG CANCAAGACG CAAGAAGACA 60
 GGANGAGAAG CANGAAGTGA GACTGGAGGG AAAGGGAGCT GAGTCTNCTA GN 112

SEQ ID NO:5476

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06515

SEQUENCE DESCRIPTION:

GATCATTCTT TTATAGAGCA TATTTGCCAA TAAAGCTTTT GGAAGCCGGA AA 52

SEQ ID NO:5477

SEQUENCE LENGTH:223

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06516

SEQUENCE DESCRIPTION:

GATCTAACTT TGCACCTTTT GATAATAATG TTTTAGATAA TGTGCGTAAT CCAAATTGGT 60
 ATTGTAGCCT CTGTTAACAC AGACAGTATA TGTTTAAAC TTTGATGTAA ACCTTTNAG 120
 ACCCAAATT GTGGAAGTAT CATGTGTTAA GTNCTCTGTC TCTGTTTCTT TGTTCAATTA 180
 TTAATAAAT GAACTTGTTA TTAAAGTATA TGCAAAATNG AAA 223

SEQ ID NO:5478

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06517

SEQUENCE DESCRIPTION:

5 GATCCGGGGN AGCTGTATCC CCAGTAGAAA AAACATTTTA ATCACTCTAA TATAACTCTG 60
 GATGAAACAC ACCTTTTTTT TTAATAAGAA AAGAGAATTA ACTNCTTCAG AAATAACTAA 120
 TAAATGAAAA ACCTTTAAAG GAAA 144

SEQ ID NO:5479

10 SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06518

15 SEQUENCE DESCRIPTION:

GATCTTTTGA CGNNTATANA AATGTACTAA TGTNATAAGT TAATGCTGGN CATTTCATT 60
 ATATATATTT TTAAGAGGCT AGAGGCTTTT AGCTTTTAA AACTCCATTA TATACAN 117

SEQ ID NO:5480

20 SEQUENCE LENGTH:168

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06519

25 SEQUENCE DESCRIPTION:

GATCTTTTAT TCTCATGCAG ATATTTCTAT TGTGGGCTTA TACATTTGNT CACCTATTGT 60
 TGATGGNACT TGNACTTTC CATTITGGCG CTATTACAAN TAGGCACTAT GAATGACTGA 120
 TGNACCACTT ACTTGAGCTT TATGNCTTAT TNTCAAAGCN GCAAAATN 168

SEQ ID NO:5481

30 SEQUENCE LENGTH:395

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS06520

SEQUENCE DESCRIPTION:

GATCAGTTAT GAAGAAGGGA AAGCTTTGGC AGAATCTTGG AATGCAGCTT TTTTGGAAATC 60
 TNCTGCTAAA GAAAATCAGA CTGCTGTGGA TGTTTTTCGA AGGATAATTT NGGAGGCAGA 120
 AAAAATGGAC GGGGCAGCTT CACAAGGCAA GTCTTCATGC TCGGTGATGT GATTCTNCTG 180
 40 CAAANCCTGA GGACACTGGG AATATATTCT ACCTGAAGAA GCAAGCTGCC CGTCCTCCTT 240
 GAGGATAACC TATGCTNCTT TTNCTCCTG TTAACCTGNA AGATATCATT GGGNTCAGAG 300
 CTCCCTNCCT TCAGATTATG TTACCTCTGA GTCTGTCCAA TGAGTCACTT CCATTTCAAA 360
 TTNNNNGCAT CNNTTNCAN TGTGTATGTN GNATN 395

SEQ ID NO:5482

45 SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS06521

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SEQUENCE DESCRIPTION:

GATCTTCCAG AGAAGGGAAC ATCTGTCACA GACAATGACT GTATCTGTNT AGATATTTCT 60
 TATTTAATAA AGACGATTG TCAGTTAAA 89

SEQ ID NO:5483

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06522

SEQUENCE DESCRIPTION:

GATCAGAAAT GCCTCCTTTA CCTACCAGAG CCTACAACAC TACCTGCCAC TAATAGTTAT 60
 GTCACCTCT TATTAATCAT CATCTAGCCC TAAGTCTGGN CTATNAGTGA CTACAAAAGA 120
 TTAGCTGAGT GAATAAA 137

SEQ ID NO:5484

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06523

SEQUENCE DESCRIPTION:

GATCAGGGA AGAATACCAA CCTGCATAAG TGTACTAANT CTACGTCTGG TTAATGTATG 60
 TACTCTCCTG GACTGAATGC AGTGATAAT TCCTGTCTAC ANTAGAAGTG TGCCCCAGTT 120
 CCACATTGA TTACACATGT GAGATTTGCT GCTGTTGCAT ATAACACTAG GNTAATAGNT 180
 TTGNATNCAT GCAGTCATAA AAATTGGAAT GAGAATTAAN CTGCAGGAAC ATTTGNACGN 240
 TNTCTNCNCN 250

SEQ ID NO:5485

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06524

SEQUENCE DESCRIPTION:

GATCAGAACC AGAAAGAACT NTGCTTNACC GAGAAAAATAT CTAACATCG AAAAACTTAA 60
 ATATTATGGA AAAAAACAT TGCAAAATAT AAAGTAANTA AAAAAAGGAA GGANCNN 117

SEQ ID NO:5486

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06525

SEQUENCE DESCRIPTION:

GATCTAATGC AGGATGTCAG ACTTNTNTCT ATCCAGGAAT AAAACCAGTT ATGCCAGAAG 60
 TAACTATTAT NCACCTNTCT CCTACTGAAT TAAAATACTA TCAGTTGTAT ATNAAATN 118

SEQ ID NO:5487

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06526

SEQUENCE DESCRIPTION:

GATCACAGTT TTCAGCANNT CAGACATGGT CTTGNGTAGT TGTTC AACAG TGT TTGCCAG 60
CTACAGAGGA AANGNCAGAC TCACAGAAGG GTGTCATT TA GAAGAAAGAA CACTAATN 118

SEQ ID NO:5488

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06527

SEQUENCE DESCRIPTION:

GATCCTCAAC GAAATCAATC TCACAATAGG NAAGGAAAAG NCAATACAAG GAAGAAACCA 60
TTGAGAAGAT GCAGAATAAA GTAATCTTAT ATACANGCTT TGATTAAAAC TTGAAACAAA 120

SEQ ID NO:5489

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06528

SEQUENCE DESCRIPTION:

GATCGCCATC ANTTGGGTAG TGACAGNGTA TTAATTTGCT TATACANTTN CTTTACTNTC 60
CTTTTTTCCT TTCTGGAGCA TCACATGCTG GTGCTGTGTC TTTATAATGT N 111

SEQ ID NO:5490

SEQUENCE LENGTH:422

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06529

SEQUENCE DESCRIPTION:

GATCCTACAG ATACAAGTTG CTAAANGGGC ATATCAACAG TCCAACAAAT AAAGAAGATG 60
CCTGGATTGA GCATGATGTT TGGAGATGGA GATTTATGTG TCTCTGGGAT TGTGGGTTGG 120
ANTACTGGTC TGTGGCTGTN ACANCTATTC CTCTGTGAGT GACTCTTGCA TGGAGAGATT 180
CATATATTCA GGCAGCTAGG ATTGTTTCCTT CTA CTGGGAC ATACACGATT GANTTTNCTG 240
AATANGGGTA GTTAANCATT GTATGTTACN CNCAC TTTTG TGCTTTTCCT CCATTGTGCC 300
NTATTAACGC TCTTTCGCNT CTGNGAGAGT CTGAGTTAGC TGGTGGAGCG CCAAATACAA 360
CTGGTTGTCC GTGTGTNCTT TCCCTTTGTC ANTGGTTTGC CACATCAGTT TGTGNTGTAT 420
GN 422

SEQ ID NO:5491

SEQUENCE LENGTH:192

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06530

SEQUENCE DESCRIPTION:

5 GATCCCCCAG ATACCAGCTC TTCTGGNTAT ACACAGACCA GCTATAATTN GCTAAGCATA 60
 AANTATTNCA GTGTATTAGC CAGCNGTGGC TCCAGAGTCT GTGCCCTTGA CCACCGTGCC 120
 CAACTGTTTC ACATGCTGTG TTTGGTAGTT TNNCTAGTG CTCTCCTTAA TAATGGTGGT 180
 GTNTAGCAAA NN 192

10 SEQ ID NO:5492

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06531

15 SEQUENCE DESCRIPTION:

GATCATTAGG TCAGAGITTA CACGNCCTCT CGTCACTAGA ATCCACCCAG CCCACGAATC 60
 ATCACCNCCT TGAAGGACAT TATTACTACT GNAANTTNGA ACAAACNTN 108

20 SEQ ID NO:5493

SEQUENCE LENGTH:329

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06532

25 SEQUENCE DESCRIPTION:

30 GATCCATCCA GAACAGCGGT ATCTGAAGCC CAGGCCATAC TCCCTGCCTC CTTNCTTCTG 60
 CCTACCAGAG GCTCCANAGT TGAGCTTGTC CNNTATCTAG AAACATGTGA AGATGCCCAA 120
 GAGCCTGGAG GCACTGCTGT CCTTCCTNCA GAAACAGTTT CTCCTCCTNC CCTCAGCCTT 180
 GTGGCCANTT CCNCTTCACA TGAAGCCCCT TGGCATTTC TNGGGAAGGG ACTNGCCTGG 240
 TACTTGCTGT TAGGGCAGGA AGGGGCAAAAN GGNGACTTT GGGTAAAGTAA TCTGGGGGGT 300
 TTAGATGGGN AGCANTAAGC CAGCTNNGN 329

35 SEQ ID NO:5494

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06533

40 SEQUENCE DESCRIPTION:

GATCATGCTT GTNTNAGGCA ATCATGGTGG CATCACCCAT AAAGGGAACA CATTAACTT 60
 TTTTNTCTCA TATTTTAAAT TACTACANGA TTATTAAAGA TAAATNATT TGAAAACTC 120
 TTAAT 125

45 SEQ ID NO:5495

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06536

50 SEQUENCE DESCRIPTION:

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GATCATGAGA CTGAAATTGG TCAGAATTGT GTCCAGAATG TGCTCAGCTA ATTCAGTATT 60
 CTTCCCCATT CTGGGTTGGA GTTTACTGCA GAGTAATTCT TACAGTGCTG ATGTCAAGAC 120
 TGTACTGTT CTTCGACTTT GATTCTTGC TCATGACATG AGTAGGGTGT GCTCTTCTGT 180
 CACTTCACAC AGACCTTTTG CCTTTTTTAG CTGCAAGTCA AGGACTAGGT TGATGATGCN 240
 CATGACCTGT AATTGTAAAG ANGCTTGGNC ATCTGCAAT GATATTNAGA CCATCTNGGC 300
 TTGTGCTTNN ATTCAAACTA ATGTGAACCA ATANGTN 337

SEQ ID NO:5496
 SEQUENCE LENGTH:194
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06537

SEQUENCE DESCRIPTION:
 GATCCATGAT GATAATTAAG AGAAGAGAAA AAAAGATATT ATTTTGTNA GGACAAACCA 60
 TTGTAGGTTT TTAGCAATGT GTATCTGTGT GTCCCTCACA CCTTTTCTA TTCTACTTTT 120
 TTTTCCTTTT TTTAAAAATA TTATGTACTA TATTTNAGT CTCAACACA CTATATATTA 180
 TATATNTNNN NNNN 194

SEQ ID NO:5497
 SEQUENCE LENGTH:207
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06538

SEQUENCE DESCRIPTION:
 GATCATTCT AGGCAAAATT GTGAAGCTAA TGACCAACCT GTTCTACCT ATATGCAGTC 60
 TCTTTATTN ACTAGAAATG GGAATCATGG CCTCTGAAG AGAAAAAGT NACCATTCTG 120
 CATTTAGCTG TNTTCATATA TTGCATNTCT GTATTTTTTG TTTGGATTGT AAAAAGTCA 180
 CATAATAAAC GATGTTGTG ATGTAAA 207

SEQ ID NO:5498
 SEQUENCE LENGTH:320
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06539

SEQUENCE DESCRIPTION:
 GATCCAAGTG ACCAAAGGAG TTCAAGGCC AAAATTTAGT TATGCTGGAT TAATTCTGAG 60
 AGTAACAAGC ACATAGATTA TAATCTAAGA AAACCTTTG TAGCTATGCA TNGTCGGGAG 120
 AGCATCTAAC ACTAATGGTG ATGTTTCCCA TGCAGAGACT CAGATTACAG TGACTCTTCC 180
 AGTGAAGACA GATGAAAGCC ATTGGGCATT GTNCCTTTNT TAATCCAAGC TAAACTANCC 240
 AAGGATATAG GGGTGTGTAT GTGTCTGNGT GTGTGTGTT GTNTGTGTGT GCACATACAT 300
 NTNTAGGTAT GGTGTTGGN 320

SEQ ID NO:5499
 SEQUENCE LENGTH:115
 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06540

SEQUENCE DESCRIPTION:

5 GATCTGTCTT GGTGTTTGT GTTATAAAC CAAAGTTCTC TACAGACTTT ATTTTGTAC 60
AATATCATTT TGTAACTTT TACAAATAAA AACTCATTTT TATTGCTCTC TGAAA 115

SEQ ID NO:5500

SEQUENCE LENGTH:314

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06541

SEQUENCE DESCRIPTION:

15 GATCACTTAC GGAGAAACAG GAGGAAATAG CCCTGTCCAG GAGTTCAGTG TGCCTGGGTG 60
CAAGTCTACA GCTACCATCA GCGGCCTTAA ACCTGGAGTT GATTATACCA NNACTGTGTA 120
TGCTGTCACT GGCCGTGGAG ACAGCCCCGN AAGCAGCAAG CCAATTTCCA TTAATTACCG 180
AACAGAAATT GACAAACCAT CCCAGATGCA AGTGACCGNT GTTCAGGGNA GCAGCATTAG 240
20 TGTCAGTGG CTGCCTTCAA GTTCCCCTGT TACTGGTTAC AGNGTANCCN NCGCTCCCN 300
AANTGGGCCA GGAN 314

SEQ ID NO:5501

SEQUENCE LENGTH:312

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06542

SEQUENCE DESCRIPTION:

30 GATCTGGGT TAGAGTGTGT ATGATTAATA AATATACCTT TCCTCTTTTC AGGGAAAATA 60
ACAACCACCC NTAATGATAG TTGGGAAAAG AAGATTGGGT TATTTNCCA TATCATTTAG 120
CTGGAAGTGA CATTAAAAAG CACCCTGCAT CACTAGTAAT AGTGATTN NCTATTCTGC 180
CCTTGAATC GGTGTCCCTG TAAACANTC CCCACAGATT ACTTTCAGAA ATAGATGTAT 240
TTCTCTNCGT AAGGGCCAGG TTTATTTCTT CTTTTTTGN GATNNNNGN GGAAANTGCT 300
35 GCTTGACAT TN 312

SEQ ID NO:5502

SEQUENCE LENGTH:217

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06544

SEQUENCE DESCRIPTION:

45 GATCATCCTG TAAACATTTT ATCATGTATT AATCATCCCT GCCTGTGTCT ATTATTATAT 60
TCANATCTCT ACGCTGAAA CTTTCTGCCT CAATGTTTAC TGTGCCTTN NTINGCTAG 120
TATGTGTTGT TGAACAAAAA AACATTCTCT GCCTGNGTTT TAATTTTGGT CCAANGTTAT 180
TTNAATCTNG TACAATTAAG AGCTTTTGCC TATCAAA 217

SEQ ID NO:5503

50 SEQUENCE LENGTH:334

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06545

SEQUENCE DESCRIPTION:

GATCAGGTTG AATGAATGGA ACTCTTCCTG TCTGGCCTCC AAAGCAGCCT AGAAGCTGAG 60
 GGGCTGTNTT TGAGGGGACC TCCACCCTGG GGAAGTCCGA GGGGCTGGGC NAAGGGTTTC 120
 TGACGCCCAG CCTGGAGCAG GGGGGCCCTG GCCACCCCTT GTTGTCTACA CATTGTCTGG 180
 CAGCCTGTGT CCACANTATT CGTCAGTCCT CGACAGGGAG CCTGGGCTCC GTCCTGCTTT 240
 AGGGAGGGCTC TGGNAGGAGG TCCTCTCCCN NATCCCTCCA TCTTGGGGCT CCNCCAACCT 300
 NTGCACAGCT CTGCGGGNGC TGAGATATNA ATTN 334

SEQ ID NO:5504

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06546

SEQUENCE DESCRIPTION:

GATCTTTTAA AGGTTTTNAC CATTTGTNA TGAGGAATTA TACATGTATC ACATTCACTA 60
 TATTAAAATT GCACTTTTAT TTTNAAA 87

SEQ ID NO:5505

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06547

SEQUENCE DESCRIPTION:

GATCCATCCC ATGATTTGTN CCTGTCTGAG GCATAGAGGC AGGCAAGCCG TGGATTTTNC 60
 ACATGGTGAC TTTCCCACTG TGCCATGATA CAGTGTGCAT CTTATAGCAG TGCCTTTNTG 120
 TCAGGGTCTC TGCTGGCAGT CTAGACCTTT TGGGCAGAAA GGAGCTTCAA ATGGCTGTGA 180
 TAAGGAATAT TAAAAATNGT GTTTCTACTT TAATTGTATT GGCTGTTTAT GTATGTAGGA 240
 GTTAAATAG GCCAACTGG AGAAATAAGC GCATTCTGTC CACCANAAAN GTGGNTTGGN 300
 TGGTNNNTGT NNGNTTNGGN GGN 323

SEQ ID NO:5506

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06548

SEQUENCE DESCRIPTION:

GATCAAATTG CCATGAAAAA CCATCTACTA TATGTNAGAC ATGACATTCT NTTTCTCTCC 60
 TTCCTGAAAA ATAAAGTGTG GGAAGAGAAA 90

SEQ ID NO:5507

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06549

SEQUENCE DESCRIPTION:

5 GATCTTACTT TCTTGCTGCT TTTCCAACTA TAATCATTTT GCTCTTGCTT TAACAAAAGN 60
 NGNGGCACAG NAATTTAGTA AATTTGTGTA ATAACATTTA AA 102

SEQ ID NO:5508

SEQUENCE LENGTH:64

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06550

SEQUENCE DESCRIPTION:

15 GATCTCACCA CTGCACTATA GCCTGGGCGA CAGAGCAAGA CTCCCGCTCC AAAAAANGGA 60
 GAAA 64

SEQ ID NO:5509

SEQUENCE LENGTH:360

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06551

SEQUENCE DESCRIPTION:

25 GATCCACAAA TCGCTAGGAA TGTGTATACT CTGGGTAGTA AGTTTGTAGT ATTAGAAGGT 60
 TTAATGACAA GTATTGAAG AGCTGAAGTT AAGTGTTGGG AGGCCATCCC TTATGAAGGA 120
 CAATGAATGG CAAGTAAAG ACCAAGTTCT GTTCCTGGGT CCATTAATTT AGTAAAAANG 180
 GCAAAGTTCT TTCAGCACAC ATATCTGCAT GCAGTCACGT GCTGCCTAAG GNTGCTTCAT 240
 TCAACANTGA GCCTCACAGC CGTGCTACAC ANTAGGATAN TACTGTATTT TTNCTGTACC 300
 30 TTITAACATT GTGTTACAAT GGCCTACAAG AGGCTTGTGT GGNTGGCTTT NNNTGTGGGN 360

SEQ ID NO:5510

SEQUENCE LENGTH:357

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06552

SEQUENCE DESCRIPTION:

40 GATCATCCTC ATTAGCACAC AGATTTTNA AATCAATTC TCTNGCCATG CCTCCTATGT 60
 GTTCACATCT CTGCATACAC TACAGATATA AGTGCATAAT CATTATATA NACATCTGGT 120
 AGGTATTCTG TAAAACTGTG TTTACTTTAG TGCATGTNAT TGTCATGTNA TGATGTGACT 180
 GGGGTGTTTC TTTGTGCATG AAACTTTGCT TCTNCACAGA NTTAGATTAC TGCTCTCTCT 240
 ATATNGANCT NCATATACAG CGTTTTCTTG TTATCAGCCC CCCNAAGTCT GGGATGCCCG 300
 45 GTGGTTGGTG NTGACATGTG AGTGGTGNC TGGGNGGTCT GNTNCACATA GGGGCNN 357

SEQ ID NO:5511

SEQUENCE LENGTH:138

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS06553

SEQUENCE DESCRIPTION:

5 GATCTTTTCA GCTGCTATTT TGGAATAATG ACTATCATAT ATCATAACAG TGACTGATGT 60
 TGGTTGTAAT GGTGGGGTTT AGGATGAACC ATTTTAAGGA TGCCAAATNA AATATTAGTA 120
 TTTGTACACA GTAAGAAA 138

SEQ ID NO:5512

10 SEQUENCE LENGTH:167

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06555

SEQUENCE DESCRIPTION:

15 GATCCCAGCA GGGNTTCTGC TCTGGGGCTG GCAGGTTGCC TGGTATTATG CCCAAGGNCG 60
 NTCTGCCTGG GGGAAAGGGC AGCCAGGCAG AGGCCCAGTG TCTAGTAGGC NGCTGAATTT 120
 CCTGGAAGGG GTGATTGGTT GGAAAGNGGN CAGNAACCCC AGCCTNN 167

SEQ ID NO:5513

20 SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06556

SEQUENCE DESCRIPTION:

25 GATCCCTTGG AGCACCTTNA TGCCTGGGGT TTCTCTCCCT AAAGCTTCTT GCAGTCTAAG 60
 CCTTATCCCT TATGTNCCCC ATTAAGGAA TTTCAAAGA CATGGAGAAA NTTGGGAAGG 120
 TTTGTNCTGA CTGCTGGNNG CAGAAATAGCC GTGGNAGGN 159

SEQ ID NO:5514

30 SEQUENCE LENGTH:167

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06557

SEQUENCE DESCRIPTION:

35 GATCTGGACA AATGGCAAAT AATTGGGGT TGAATTATGG CCCAGAGAAG TAAGCAAATG 60
 NAAACTAAA CANTTATAAA TGTATCTGGG AAGCAAAGGT ATTCATANTA NGTCCCATGG 120
 CCAGCTGCGA GCAGTATTTA ACTAGACATG CTGTTGTCAA TANNNNN 167

SEQ ID NO:5515

45 SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06558

SEQUENCE DESCRIPTION:

50 GATCGTCCCC CTTTNTGGGC TGGAAAAGCA GGTGAGGNTG GGGTGGGCTG AGGCCATTNC 60
 CGCCACTATC TGTTAATAA AATCCGTGAG CACGAAA 97

SEQ ID NO:5516

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

5 TOPOLOGY:linear

CLONE:HUMGS06559

SEQUENCE DESCRIPTION:

10 GATCCTCCGG AAGTAGTCTC TNCCCTCGGC AGCGGAAATA CTGATTCCCA CTGCTCCTNC 60
CTCTAGGGTG CAGTGTCCGT ACCTNCTGGA GCTGGNCCCT CCTTCCCCAN CCCAGACATT 120
GAGAAACTTG GGAAGAAGAG AGAAACCTNA AGCTCCCAA CAGCACGTTG CGGGAAAGAG 180
GAAGNGAGAG TNTGAGTNTG TGTGTGNTT TTTCTATTG ANCAN 225

SEQ ID NO:5517

15 SEQUENCE LENGTH:340

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06560

SEQUENCE DESCRIPTION:

20 GATCATTAAAT AAAGCTTTTC TTGGTTCCTT CAGTGGTGT GGTAGTAAAA TGGAAGGNGT 60
CTTGCTGCAG GTAACATAATG AAGANGTGGT CAACCACAGA GTCTTCAAGA AATAAGAAAT 120
TCTGTACCAN CTGAAAGTAG TGCTTGTGG TGCTTCNTT TAAAAAGCAC TCTTTTAAAT 180
AAAAGGGAAA TGTTTCTGA TAAACCAAAC ATTTAGTTGA GGTCTTGAT ATAAACATT 240
25 TACAANNIGA GTTTGTNTG TAAAGCAGTA GCCNTCATT TGGCTAGNG AGNTAAATGN 300
GTCANGTTTT ANCTAGGTTT TNGTGAGTNG NCAGGTTTNN 340

SEQ ID NO:5518

SEQUENCE LENGTH:330

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06561

SEQUENCE DESCRIPTION:

35 GATCAAAGCC AGTNTTAAAT GGGAGACCGA GCGAGCGCGG CAAGTGCTGG AACACCTGCT 60
GAAGGAAGGG TTGGCGTGGC TGGACTTACA GGCCCCAGGG GAGGCCCACT ACTGGCTGCC 120
AGCTCTCTTC ACTGACCTCT ACTCCCAGGA GATTACAGCT GAGGAGGCCA GAGAAGCCCT 180
CCCCTGACTG CATGTGGAAG GGCACACAGC AGCAGGCAGG GAGGAGCGG AGGTGGCAA 240
TAAACCTGGG CAATTTTGT TATACAAAA ATAGAAGAAA AGTTCCAAGT TTTCTTTCT 300
40 TCCCTCATT TTTNTTTT GAAAAAAGAN 330

SEQ ID NO:5519

SEQUENCE LENGTH:111

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06563

SEQUENCE DESCRIPTION:

50 GATCTCATGA TGATTACAC CACAGNCTGG GNTAAAGATG TCTTGACCTC TGAGGCTAGC 60
ATAACATATA TNAGAATACA NCTTGCCTAT TTCCAGAAAA TCTGTATATT N 111

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SEQ ID NO:5520

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06564

SEQUENCE DESCRIPTION:

GATCAGCTTA CTGAAAAGAA GCCTCCNNAG TATTCCAAAT ACAGATTACA TCCAGCTGCT 60
TAGTGAAATT GCCAAGGNAC AAGGNTTTAA TATAACATAT TTGGATATAG NTGAACTGAG 120
CGNCAATGGN 130

SEQ ID NO:5521

SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06565

SEQUENCE DESCRIPTION:

GATCNACAAT NTGAATATGT GTTACTTAAT AAGGCTAGGC TGGCCATCAG TNGCTTANTT 60
CAGATGTGTC ACTAAATTTC CCNTCTAGAT GGTCTTGAG CAAAACCTTA TAN 113

SEQ ID NO:5522

SEQUENCE LENGTH:271

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06566

SEQUENCE DESCRIPTION:

GATCATCACA GTTTGAGTTT GACCCCAATG CCAGGATGGT GACACACATA TTAAAGAGTA 60
ACAGCTGGTT ACATTGCTAG GCGAGATAGG GGGAAAGACAG ATATGGGTGT TTTTAATAAA 120
TCTAATAATN ATNCATCTAA TGTATTATGA GCCAAAATGG NTAATTTTTC CTGCATGTTC 180
TGTGNNTGTN GAAGATGAGC CTTGCAGATA TCTGCATGTG TCATGNNGAA TGNTTCTGGA 240
ATNCTTNACT TGCTNTTGGA NTTGCACTGG N 271

SEQ ID NO:5523

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06567

SEQUENCE DESCRIPTION:

GATCTCACTT TCCCCTTG TG GGGTAGGAAC CGATGCCAGT GGGAGGGATG TGCCCTGAC 60
CATTACGAC TGTTTTTTT TTTTTTTTA AAAAAATGGN GTTNTTGGGN GGGGNAATNC 120
ACANAN 126

SEQ ID NO:5524

SEQUENCE LENGTH:156

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06569

SEQUENCE DESCRIPTION:

5 GATCACGGGA ATGCTGCTGG AGATAGACAA CTCTNAGTTG CTGCACATNT TAGAGTCCCC 60
CGAGTCTCTC CGCTCCAAGG TGGATGAAGC TGTAGCAGTT CTACAGGCTC NTCATGCCAA 120
GAAAGAAGCT GCCCAGAAGG TGGGCGCTGT TNNNNN 156

SEQ ID NO:5525

10 SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06571

15 SEQUENCE DESCRIPTION:

GATCCTTCTA GACCAAGGAC CCATTGTAA AAGCATGGAT TCTGCCTGAN TTA CTTCCT 60
TTTGAGAAAT CATATCTCAA ATACATAACC TGGTAATATA ACTGAAAAA TAAAAGTGAT 120
TGCTCCTTCC AAA 133

20 SEQ ID NO:5526

SEQUENCE LENGTH:156

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS06572

SEQUENCE DESCRIPTION:

GATCCCTGCT TCATAGATT GCATATTCA AGCATATCTT GTAAAAAAA CACATATTAT 60
GGGACTAGGA AATATTATC TTCCAAAATT TGCCATAACA GATTTAGGTT GCTTNCCTTN 120
CTTTGAAGGA AAGTTTAATT ACATTGCTCT NNNNNN 156

30 SEQ ID NO:5527

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS06573

SEQUENCE DESCRIPTION:

GATCCTAGCT GCAGATTGCA TCCCACAATG CGAGAATAAT AAAATAAAAT TNGATATTNG 60
AAA 63

40 SEQ ID NO:5528

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS06574

SEQUENCE DESCRIPTION:

GATCNATGGT GTGACTCAAG CTCNCCTTA CCCAGGGGGG GTAAGGGCAG GCCTCTAGCT 60
ACTTGGAGTT GTCTGTAATA ATCTNGAAAG GCCCAAGGGC CTGTGCCCAT CCTGACTNAA 120
AGGNATCTCC TTCCCTGTTT CATATCACAT GACAGAGAAA CCTGTTCTCA TGGCATGNAA 180

55

CATCCCTGTN AAGAGAGCGT TGNCNNN

207

SEQ ID NO:5529

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06576

SEQUENCE DESCRIPTION:

GATCTTGCAC ATGAAGCTAC AAAACTGGTA AGAAACAAAT GGCACATGTG NTGGGAATGG 60
 AAGTCAACCT TTTTGAATTT TTCAAATGTA AGTCAGTCTG GAAAATCCCA GTAAATTGGT 120
 ATATTTGTTT TGGGTATTT TTGAAGACCT CTTTAAAT TTGCCTAAAA TAAATNCTCG 180
 GTATGCTAAA 190

SEQ ID NO:5530

SEQUENCE LENGTH:341

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06577

SEQUENCE DESCRIPTION:

GATCCGCCGC CAGAAAGGTT ATGCATCATG TGCCACAGCC TCCAAGGTGC CCATCATGGA 60
 ATNTCGTGGG GGCTGTGGG CNANTGTGTC CAGCCCACCC GCAGCAAGCG NCGGAAATAC 120
 GTCTTCCAGT GCACGGNTGG CTCCTCGTTT GTAGAAGAGG TGGAGAGACA CTTAGAGTGC 180
 GGCTGCCTCG CGTGTTCCTA AGCCCCTGCC CGCCTGCNTG CCACCTCTNG GACTCCAGCT 240
 TGATGGAGTT GGGACAGCCA TGTGGGACCC CCTGGTGATT CAGCATGAAG GANATGAAGC 300
 TGGAGANGAA GGTAAAGGAG GAAGAGANTA TTANGTATTT N 341

SEQ ID NO:5531

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06578

SEQUENCE DESCRIPTION:

GATCTNTTCC AACAGTTCTN TGTAAACCAA ATGCTATTTT TCANTGCATT TGGACTGCTG 60
 ACCATTAAA AGCAGCCTAT GATTGCTTCT TTTTGTAAG CAAGCAACCN GCCTCCACTT 120
 TAGCTGTTTT NACTATTNGA TNTN 144

SEQ ID NO:5532

SEQUENCE LENGTH:224

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06579

SEQUENCE DESCRIPTION:

GATCCTAAAA CGAAGAGAAT TTTGACTCTC CAGAAAGCTA ATAGCTGGTT CAACTGCAGG 60
 AAAAAATTGAA CATTACTAAT TTGAATGGAA AACACATGGT GTGAGTCCAA NGGAGGTGTT 120
 TTCCTGAAGA NCTGTCTATT TCCTCAGTCA TTTTAACT CTAGAGTCAC TGATACACAG 180

AATATAATCT TATTATACC TCAAANNGAN TNANANGGG NNN

224

SEQ ID NO:5533

SEQUENCE LENGTH:345

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06580

SEQUENCE DESCRIPTION:

GATCTNCCTC NACACCTNGG GCAAAGTCTA TGCGAAGATG GTTCTTAGC TCTCCATTG 60
 CCATGATTTT CCTCCCATTC ATCATGAGGG AGTTTCTCAA ACCAGGAGTT NATATTTATT 120
 TNTNAGAAAA TACACACTTT TCAGGAGAAA CCTGAGCATG ATTTTGGATT CTCCACCTCC 180
 CCCCAGTCTC GGNNNCTGGG ATTCAAGCTCA AGGNTTCAGT GTCTTCATTT TTACAAAAGT 240
 TCCCCAAGA AATCAGCAAC CAGCCTCTGT TTCATCTGGG AGCCCTCCC TNGGNCCCCT 300
 GGGTTTTGGG GGGTGCTGNC CTACTGGGGG AACAGCGGGG GGTGN 345

SEQ ID NO:5534

SEQUENCE LENGTH:179

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06581

SEQUENCE DESCRIPTION:

GATCATNTTG GAACCAGACA AGAATCCAAA GAAAATAAGA ACACAGACCA CCAGTGCAAA 60
 ACAAGAAAA GCACCAAGTA AAAAGCCAGT GAAAAGAAGA AAAAGAAGA GAGCTGCCAN 120
 TTAAAGCTAA CAGTTGTATA TCTGTATATA TAACTATTAA AAGGGATATT TATCCAAA 179

SEQ ID NO:5535

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06582

SEQUENCE DESCRIPTION:

GATCAAAGTT AAGNTTATAT CCTGTTTGTG GTATCAGATA TTTCTCTGTG TACAATTATA 60
 GGATTGTAAT CTACACTGGA ATTTNAGGC AGTAAGTCAC CACAAAATGT TTTAGATAAG 120
 ACACAATAAA ATTATTATAA ATAAAAGCTT AATGTTTGTG AAAANTCTCT TTTTAGTAT 180
 TTCTTTTTTC ACATGNAAGN NGTGGTGGCT GCTAAANAAA NAGCTACAGT GTTTATTANG 240
 GGTCGTTTTG ATTTNTGTNA NTCITTTGTAA ATTGGTCAGT GCCTGTN 287

SEQ ID NO:5536

SEQUENCE LENGTH:258

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06583

SEQUENCE DESCRIPTION:

GATCCCAGAG GCTCTCCTCA CCTCANCTGA GCTCCTTTAA AAGTAATCA AGGGACTATG 60
 TCACTCAGCC TCATTTNCTG GACCAAACTC GGAGGGAGAA CCCCTAAAAC CCCTAAGTAA 120

GGTTGCCCAG GGGGTTGTCC CCAGGTGGGG GGAAGCAGGG GAGAGAAAAT GGTAGCCATT 180
 TTAACATTGT TTTGTATAGT ATTTATTGAT TCAGGAAACA AACACAAAAT TCTGAATAAA 240
 ATGACTTGGA AACTGAAA 258

5

SEQ ID NO:5537
 SEQUENCE LENGTH:248
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06584

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SEQUENCE DESCRIPTION:
 GATCGCTTGA GGCCAGTTCA AGACCAGCCT GGCCAACATG GCGAAACCCG TCTCCACTAA 60
 AAATACAAAA CTTAGCCAGG CGTGGTGGCG CGCGCCTGTA ATCCCAGCTA NTCGGGAGGC 120
 TGAGGCAGGN GAATCGCTTG AACCCGGGAG GTGGAGGTTA CAGTGAGCCA AGATTGCACC 180
 ACTGCACTCC GGCCTGGGCA NCATNGCGAG ACTCTGTCTC AGNNAGGAGG GGGGGGTTNN 240
 NNTANTNN 248

15

SEQ ID NO:5538
 SEQUENCE LENGTH:198
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06585

20

SEQUENCE DESCRIPTION:
 GATCCTGAAA GAGGACAAAC TACATTGCCT TTTAGACCTN TGACTCAAGA AGAAGATGAT 60
 GACCAAAGGT GATTGTAAAC TTAACATGCC TTNTCCTGAT NTTGAAGGAT TTGTGAAGGG 120
 AAAAAAATTC TNGGCTCTTT GTATATAATA AAATGAGACT ANANGCATTG TNNAAAAAAA 180
 AAAAGATTAA NTTTAGAN 198

25

SEQ ID NO:5539
 SEQUENCE LENGTH:188
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06586

30

SEQUENCE DESCRIPTION:
 GATCCCCACA CTTACTCTAC CCTCTNGGCA AATTGGCATT CCGGTGGTGG GTTTTGTNTC 60
 CTTTAACACA TTAAATAAAT NAGTATATAG GATGTGAGGG GAGGGGTGAG ANCAACTAGC 120
 TGTAGCATGT NTAGGCTATA TACTTTACCA NTTGACTTCT TTCCTGTTTT TTTTNAAAA 180
 NAAAAAAN 188

35

SEQ ID NO:5540
 SEQUENCE LENGTH:138
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06587

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SEQUENCE DESCRIPTION:
 GATCTGGGTG TGCTCTATGG GGAGTNCCTGA CGTCAAANAG CAAATGTCTA TAAGGGGCCC 60

45

50

TTTAAAAATN AACATTTTCC TCATTGAGCA AGCNTGGATT CTCTAATGTA GAAATCAAGC 120
CATCTTNATA ATTNCACN 138

5 SEQ ID NO:5541
SEQUENCE LENGTH:332
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS06588
SEQUENCE DESCRIPTION:
GATCCTCCCA CCTCAGCCTG CTGAGTAGCT GGGTCTACAG GTGCACACCA CCATGCCTGG 60
CTAAAGGCAT GTCTGCATTT ATGCGAGGTG TGTGACCGG GTGGGGAGGG AGCTAGGACT 120
GAGATTGCC TGTNTAAAT GCACAAAAAG GGTTTGCTAA GCAAATTGAT ATTTGAACTA 180
15 AAAGATGGAT TAGGGTGAGA GACTTAGTTT ANTCAGGAAT AGTNGCAGAG NCANCCACAN 240
CAANAANTGN ATTTCCCTGN GACAGCCGTT TGTACGTACA GCAGGGNNCT GGTTTACAGN 300
TTTCACGGAG GGNNGNTAGG GTTCTNTAC TN 332

20 SEQ ID NO:5542
SEQUENCE LENGTH:106
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06590
25 SEQUENCE DESCRIPTION:
GATCAATNA TTGACTATT GCTAGACATT TCTATACTCT GTTGTAAACAC TGAGGTATCT 60
CATTTGCCCA TGTTAATTT TTTCTAAATA AATTGACAAA AACAAA 106

30 SEQ ID NO:5543
SEQUENCE LENGTH:268
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06592
35 SEQUENCE DESCRIPTION:
GATCACAGCC TCCAGGGCCC CCCAAATCCC AGGGAAGGAC TTGGGAGAGA ATCATGCTGT 60
TGCATNTAGA NCTTTCTGCT TTGCACAGGA AAGAGTCACA CAATTAATCA ACATGTATAT 120
TTNCTCTATA CATAGAGCTC TATTTCTCTA CGGTTTTATA NAGGCCTTGG GGNTCCAACC 180
AGGCAGTAAG ANGTGCTTCT GAACCGCAAG GGGCGNACGA CTGGAAGTAA AATAGTTTGT 240
40 TTTTCNCANT TCGNGGGNAG GGGNNGGN 268

45 SEQ ID NO:5544
SEQUENCE LENGTH:177
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06593
SEQUENCE DESCRIPTION:
GATCCAAATTA ACAAATTCTG CACTGTGGCA ACTNAACGAN ATTATGCTTT GGACAGCTTT 60
50 ATGTGTGAAT GTAAGAACAT ATTCTNAAGA AATGCTGTAA CTTTATCCCA TATANCTTCA 120

55

TANGAATTTC TCTATAGGCT TGGNATTTGC AATAAAAATA GAGGATATGT TGGCAAA 177

SEQ ID NO:5545

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06594

SEQUENCE DESCRIPTION:

GATCANACAG CCTACANCCA GCCCCGAGTG TGCATCANGG TAAAAGAGCT GAGGGCTCTC 60
TNCAGGGAGC AGCCCATTTA GGTCTCTGTN GTTGTGTGTA GGGAN 105

SEQ ID NO:5546

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06595

SEQUENCE DESCRIPTION:

GATCATATNA GACGAGNAAG AGGAAGACCT AAAAGTGCAT CTGCCAAAAA ACATGAGGAA 60
GAAAGTGAGA AACAGGAAAA GGAAATTNAC ATCTATGCTA ACCTGTCTGA TGAAGAGNCT 120
TTCGTGTTTT CAGTCGCCTT NGCAGCENN 149

SEQ ID NO:5547

SEQUENCE LENGTH:411

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06596

SEQUENCE DESCRIPTION:

GATCAGTGTG AGTCCTGAAG CACTTGNAGN GCTGTGNAGG CGACATCCAC TTTGGGTTTC 60
ATTCTGTTTGT AAGCAGAGGA GCTGTGAGTC ACTCGTGCTT GTCGGTGGCC TCTGAGCCAT 120
GGTGTGCGAGT GAAGAGTAGT TCTTGTGTTGT TACAACCTTT GTGAGTCAGC CATGCCCGCA 180
AAGCGTGCTG TGTGTTAGTC CTGGTAGGAA TATTTATNAG AGTTCACACT ATGTAAAAACC 240
CAACNGCTTC ANCTATTGCC CTTTCAACAG TTTTGCCACT GACCGGATAG AACCGGTTTC 300
AGTCTCTGGA TGGGTGTGTT TGGTGGGTTT GTAACCATTG ACGGGTTTAA ANCCATGGGT 360
TTNAAAGATT GGCCCAAATA ACCAGNAATT TTGTTCCGGG GAGGGGGTTN N 411

SEQ ID NO:5548

SEQUENCE LENGTH:79

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06597

SEQUENCE DESCRIPTION:

GATCATAAAA GGCTATTATC TATNCTGGGG AACGATTATA ACTTAAATAA TTATTTTAAT 60
AAAAATACTA AGCTNNAAA 79

SEQ ID NO:5549

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06599

SEQUENCE DESCRIPTION:

GATCATCCTG CAAGTGCTCT NGTGCCTAGG ATTCATCTTT CTTTTCACCG TAGGCCCTGA 60
 CTGGCATTNT ATTAGCAAAC TCATCACTAG TCGTNGTNCT NN 102

SEQ ID NO:5550

SEQUENCE LENGTH:166

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06600

SEQUENCE DESCRIPTION:

GATCAAAACG ACGAAGAAAN GNCNCANAGA CTCAAATAAG GACAGAGTGA TTTCCAATAA 60
 TGTTC AATAG ATTTAGGAGC AGAAATGCAA GGGGCTGCAT GACCTACCAG GACAGANCTT 120
 TCCCAATTA CAGGGTGACT CACAGCCGCA TTGGTGACTC ACNNNN 166

SEQ ID NO:5551

SEQUENCE LENGTH:219

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06601

SEQUENCE DESCRIPTION:

GATCTCAGTT TCAAATCTCC CCAAGCTGCC TAAATTGAAA AAGCTTGAAC TCAGTGAAAA 60
 TAGATTCTTT GGAGGTCTGG ACATGTTAGC TGAAAACTT CCAAATCTCN NACATCTAAN 120
 CTTAAGTGGA AATAANCTGA AAGATATCAG CACCTTGGAA CCTTTGAAAA AGTTAGANTG 180
 TCTGANAAGC CTGGNCCTCT TTANNTGTGA GGTNCCAN 219

SEQ ID NO:5552

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06602

SEQUENCE DESCRIPTION:

GATCTCTTNG CGACAGTACC AAGCACGGTT CTCTACACAG GTGACTNAAG TTGCCTCTGT 60
 GTTGGCTGGC ATCCCTGAGT CCCCTNCGGG CTCCTATGGA NCNN 104

SEQ ID NO:5553

SEQUENCE LENGTH:94

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06603

SEQUENCE DESCRIPTION:

GATCATCTGA GCCTCAGGAG GTTGAGGCTG NAGTGAGCTG TGACTNCGCC ACTGNACTCC 60

AGTCTGGGAC AACAGAGCAA GACCCNGTCT TAAA

94

SEQ ID NO:5554

SEQUENCE LENGTH:78

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06604

SEQUENCE DESCRIPTION:

GATCTCCAGC TGCACAGGCC ACCGNCCCAG GGCCTGGCCG CTGTTACAGA AACAATAAAC 60
 CCTGATGGGC ATGGCAAA 78

SEQ ID NO:5555

SEQUENCE LENGTH:191

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06605

SEQUENCE DESCRIPTION:

GATCGTAACA ATGCCAAGAA GACACAAGAA TATGAGAAAG GAATTCCTAG AAAAAAGGCA 60
 AAGGTTTCAA TGAATAAGCT AATTTTCTCT AAGTCTACTG ATAACATACT CCCTACCCCA 120
 TCCTCCATTA ATAAAAGANT GGTGTTGTA TTGTATTATG AGGGAATTAA AAGTGTGATA 180
 NGANANNNNN N 191

SEQ ID NO:5556

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06606

SEQUENCE DESCRIPTION:

GATCGGAGAA TTGTGTAGGC GAATAGGAAA TATCATTCGG GCTTGATGTG GGGAGGGGTG 60
 TTTAAGGGGT TGGCTAGGGT ATAATTGTCT GGTTCGCCTA AA 102

SEQ ID NO:5557

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06607

SEQUENCE DESCRIPTION:

GATCTCACTT CTGTCAGATG CTCCCATCCA CTATNAATGC ACTAGGTGGG AGGAGAGGGC 60
 GGCAATGACA CTGCACCTCT CCTTTCCAC CGCATTCCCT GGAGCTCCCT AAATAAACT 120
 TTTTAAACG TGAAA 135

SEQ ID NO:5558

SEQUENCE LENGTH:182

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06608

SEQUENCE DESCRIPTION:

5 GATCAAGTAA AAATGCAAAT CAATGATGCA AAGAAAACAG AAAAGAAAA GAAGAAAAGA 60
 CAGGATATTT CTGTCATAA ATTAAAGCTG TAATATATTT NNANTATAAT GTAAATATTA 120
 ATGTGTAAGC TTATATTGTG TCATTGTNCT GTTTATAAT AAAATNCTTG AGAACCTTCA 180
 AA 182

10 SEQ ID NO:5559

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15 CLONE:HUMGS06609

SEQUENCE DESCRIPTION:

GATCTTGACC TCACGGTGTA AGAAGGGAGA GGATGGTTTC TCTTCTGCCC TCTCCCATGG 60
 TGCCCGTGCC TCTNTGCTGT GTATGTGAAC CACCCACGTG AGGGAATAAA CCTGGCACTA 120
 GAAAA 125

20

SEQ ID NO:5560

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS06610

SEQUENCE DESCRIPTION:

30 GATCTTTTGA GATACAATCC TTATTTAAAA AGGAGAAGAT AACTGAGGAT TTTAAAAAGA 60
 AGCCATGGAA AAACCTCCTA GTAAGCATCT ACTTCAGGCC AACAAGGTTA TATGAATATA 120
 TAGTGATATAG AAGCGATTGA AGTTACAATG TTTTATGGCC TAAATTTATT AAATAAAATG 180
 CACAAAACCTT TGAAG 195

35 SEQ ID NO:5561

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS06611

SEQUENCE DESCRIPTION:

40 GATCTTGTGC TCAACATGAT NCNTTAATAG AAGTTTTATN TTTCTGTGCA CTCTGCTAAT 60
 CATGTGGGTG AGCCAGTGGA ACACGGGGAG ACCTGTGCTA GTTTACAGA TTTCTCCTTA 120
 AATNCGCGG N 131

45 SEQ ID NO:5562

SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS06612

SEQUENCE DESCRIPTION:

50 GATCTAATAG CTGAACATGAT TCAAACTGTA ATAAGCTCAT CAATTCANT TCTATGAAAA 60

55

TGTGCTCTGT TGTACAGGA TGTTCCTGT GGTTCCTTC ATTCCTGGG AATTGGTAAA 120
 CATCATGTTT CNGATGATAA CCCAGTAGCA AAANCATTG TNCTGTGTGG TACAAGCCTT 180
 NGGGACTGNN AAANAN 196

SEQ ID NO:5563
 SEQUENCE LENGTH:307
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06613

SEQUENCE DESCRIPTION:
 GATCCCATAA TATAATCAT ATCCTTTATA TTTNAGAATA TCTCAAATGT ATTCTTTTTT 60
 TGTATGGTGG GTTTGCCTAG GGACGTGTAA CTACAGGCTT TACTAAGCC AAGGAAAAAG 120
 AGAATTTTNC TTTTCATCTT ACAAATTCCA GATATCTACA AANGNTGTGA AAGCACTAAA 180
 AGNGNNGNTT TTAAGCAGTA CTTTACCTGT TTTTCCTTTA GCAAACCAGG TTATGTGGTG 240
 TAAAGGTTTG TNATACGTGC CACAATATAG CATATAAATG TTATGCCATC ATTCCTTCTC 300
 TTGTTAN 307

SEQ ID NO:5564
 SEQUENCE LENGTH:188
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06614

SEQUENCE DESCRIPTION:
 GATCTATACA TGAACAGCAG AATGTATAAG CTAGCATTTA CTAGCATGTC TCTNATACTT 60
 TTGTNCATTT CTGTTAATCG TCATTTCTGT CCCCTCTGCA TGGAAATTNA TACTTGCTTA 120
 GGGTAAGAGT TTGTAGACTC TTTCAGCAGA ACAGATTTTA ATAACCAATT TATNTGTTTT 180
 ATTTTAAA 188

SEQ ID NO:5565
 SEQUENCE LENGTH:178
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06615

SEQUENCE DESCRIPTION:
 GATCAGCACA TCCAAAAACA CCAAGACAAA CATCCATGTG GAGCAGAACC TNTCCTGCCT 60
 CGGGAGTTCT GACCAGGTTT CCCAGCAGGG TGTTAAGCCT CTGTNTCTGG CCTACCAGC 120
 ATNCGGGTTC CACTTTTCCT AGGAGAGNGT GGAGATGGGN NGACAGGGAA AGGNNNGN 178

SEQ ID NO:5566
 SEQUENCE LENGTH:104
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06616
 SEQUENCE DESCRIPTION:
 GATCTATCAT TTTAATTGAT TCTGAAGCTT GTATTAAAAA CTAGGCAATA NCATCATGGG 60

ATACATAGGA GANGGCACAT TTTACAATCA TNCATTNTGG CCNN

104

SEQ ID NO:5567

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06617

SEQUENCE DESCRIPTION:

GATCTGCTGA,CAAAACCTGG GAATTTGGGT TGTGTATGCG AATNTTTCAG TGCCTCAAAC 60

AAATNTGTAT TTAACCTATG TAAAAGATAA GTCTGGAAAT AAATGTCTGT TTATTTTGT 120

ACTATTTAAA 130

SEQ ID NO:5568

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06618

SEQUENCE DESCRIPTION:

GATCATTTAA CATTCTGTGT ATGTAACAAA ATATCACATG CATAAATATT ATGTATCAAT 60

AAAATTTTTT AATGGGCAAA 80

SEQ ID NO:5569

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06619

SEQUENCE DESCRIPTION:

GATCCGGTCA CTGCACTCCA GCCTNGGAGA CTACAGCAAG ACTCTNTCTC CAGTTAAA 58

SEQ ID NO:5570

SEQUENCE LENGTH:188

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06620

SEQUENCE DESCRIPTION:

GATCTGAGGG GTGGTGCCTA CTTCCACTGT AAGAAAGAAT CTNGGTGGAT TTGTGTNTCA 60

AATCANGATA AGAGAAGCCT GTTTAAAGGA GCAGATGCCA TCTNCTGNCT TCCTCAAGGA 120

GCCAGTTAAA AAACCAGAGC ATTCCTTTTN ATTGAAAAAT AAAATTAGTT TGTATCAAA 180

ANNNGGTN 188

SEQ ID NO:5571

SEQUENCE LENGTH:240

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06621

SEQUENCE DESCRIPTION:

GATCATAAAC CGTTGCGGGA CAGAAGTTAG ATATGTGATT GATTATNATG ATGGTGGTGA 60
 AGTCAACAAG GACTACCACT TCACCATCCT GGACGTCCGT CCTGCCTTAG ATTCACCTTC 120
 GGCAGTATGG GACAGAATGA AAGTCGCTTG GTGGCGTTGG ACCTCGTAAA GCACTGTTTC 180
 AGATGGAAAA NTATAANCTA TTTTNNCTG AGCGATACAT TAACTATTT TCCCCAGAAA 240

SEQ ID NO:5572

SEQUENCE LENGTH:197

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06623

SEQUENCE DESCRIPTION:

GATCCTCATC TTCCCCAAAT ACTCGTTCCC AAAATTGACG AGCCTGACAA TGTGCATGCC 60
 AGGCAAGGCT CTTGGGGTTC CCTAAAACA CTTCTCTTT TAAGCCTACC ACTCACTCAT 120
 CATGAATATA GTCCATTGTC CCAGGGTGTA AAACCTCTA TAGTGTTAAA TAAAAGANTG 180
 ATTGGGGAAC ATTGAAA 197

SEQ ID NO:5573

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06624

SEQUENCE DESCRIPTION:

GATCTGGCTC AGTCTACTAT GGGCAGGGCC CCCACCAAG CTGAGCCGAA TGGAGACAGC 60
 TGAGCTGAGG CCTGACTTTT TCAATAAAAC ATTGTGTAGT TCTGGGAAA 109

SEQ ID NO:5574

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06625

SEQUENCE DESCRIPTION:

GATCTGAGCT GATGACTTGT GAGAGAAAAA GGAACAGAG TAAAGCCATG GAAGCCATGA 60
 ACAGTAAGAG ACTGCCGCCT GGCATGGTTT CTTCTTCTGC AGAAGATGAA ACTGAGGAGA 120
 AACAAGACAA CATCCTTCAT ACCAGGAATG GTCAAGATAA TGCAAGAAGA GNGNAGCTTT 180
 CAAACAANTC AGNAGGCAGT CAACAAACAG NAAGGGGGNC ATTCTTCCC TGGCAGTTAC 240
 TCATANCTGA AATTGCTTAT TGTGTACACC GGGGCTTGTA CTTGGGGNAT TTAATANNAT 300
 TGCTCATTNC CAAGCTCCNA ANNNAANTTA TTN 333

SEQ ID NO:5575

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06626

SEQUENCE DESCRIPTION:

GATCGATTGC AGTCAGAGCC TGAAAGTATC CGTAAATGGA GAGAAGAACA AATGGAACGC 60
 TTGGAAGCCC TTGATGCCAA TNNTNGGAAG CAAGANGCAG AGTGGAAAGA AAAGGCAATA 120
 NNGGAGCTAG AN 132

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SEQ ID NO:5576
 SEQUENCE LENGTH:272
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06627

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SEQUENCE DESCRIPTION:
 GATCTTGGCT TCTNACAGTT CTNCCTGTCC AAACCTCATC CTGTCCCTCA GGAACGGGGG 60
 GAAAATTCTC CGAATGTTT TGGTTTTTTG GCTGCTTGA ATTTACTTCT GCCACCTGCT 120
 GGTCATCACT GTCCTCACTA AGTGGATTCT GGCTCCCCCG TACCTNATGG CTCAAACTAC 180
 CACTCCTAAG TCGCTATATT AAGGCTTATA TTTTGNTGGA TTAGTGCTAA ATACAAAAAT 240
 NTTTGANAGG GANNGGNGNG TGNGGNGTGT NN 272

15

SEQ ID NO:5577
 SEQUENCE LENGTH:133
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06628

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SEQUENCE DESCRIPTION:
 GATCATCTG TCTGGCTGCA GTGAGAGACC AACCCTAAC AAGGGCTGGG CCACAGCAGG 60
 GAGTGCAGCC CTACCTTCTT CCCTGGCAG CTGGAGAAAT CTGGTTTCAA TATAACTCAT 120
 TTAATAATT AAA 133

25

SEQ ID NO:5578
 SEQUENCE LENGTH:186
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06630

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SEQUENCE DESCRIPTION:
 GATCCACAAA CTNCCTGACA CTACTNNCAT ATTTCCACTA AAGGAGATTC AGCTACAAA 60
 GGAGGCCAGC CNTCGGTCTT CGTCGATGCC TGAATCAGGC ANGCCAGCTT TCCGCGTGGT 120
 GGACACCGAG TTCTAAGCCA CAGACCGAGG CCCCAGCAGN CAGCGGCTGG AGGGNTGCCA 180
 CACNN 186

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SEQ ID NO:5579
 SEQUENCE LENGTH:136
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06631

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SEQUENCE DESCRIPTION:
 GATCCACTGC CTCGGCCTCC GAAAATCTGG AATNATAGAT GTGAGCCACT GCGCCAGGCC 60
 TGTAATTTTA TGTATCTTTA TGTGATTATT TGAATGTCCC TCTCTGACTA GATTATAAAT 120

50

55

TCTAAGGATA GTGAAA

136

SEQ ID NO:5580

SEQUENCE LENGTH:66

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06632

SEQUENCE DESCRIPTION:

GATCCCCGTT CTCAAGTGTC NCNGGGAACA TAAACNGAGA TAACATGAAA AAACCTTGACA 60
CAGAAA 66

SEQ ID NO:5581

SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06633

SEQUENCE DESCRIPTION:

GATCCTTNAA GGCAGCTGCC TTATCTTATT CCTTNTTGTA TTTCCATACC TAGCCTAATA 60
CCTAGCTTAT ATAAGGGAAC AGAATAAATA AACAATAAAG AAAAGTCTTT ACAGCCTCTA 120
AA 122

SEQ ID NO:5582

SEQUENCE LENGTH:262

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06634

SEQUENCE DESCRIPTION:

GATCCAGGGC CGTTCATGAA CCACTGGGCT GGATTNGACT GTTGAGTGTG GCAGTTAATG 60
CCCCTCAANA AATCAAAGGA TGTCTTATAA GTGTCTTCCA AAAAAAGCA AATGCTGAAA 120
TCCTATTGGC AAAGTAACT GAAATTGGCT GCTATATTN ATATAATCAT TTCTGCAANT 180
CCCANTTNTT GNATACTNAT GTNGGACATG GTTANTTCTT ATTAATTTGT TGGAATTGTT 240
TATTGTTAGN AGTGCANATN GN 262

SEQ ID NO:5583

SEQUENCE LENGTH:275

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06635

SEQUENCE DESCRIPTION:

GATCCTGGCC AGTACAAAGT CGTTGCTCTT GTTTATCTT CTCTTACAGA GTCTCCCTCC 60
CTTTATAGAA TGTCAACCAA AGAGTGCCCT CCTCCCCTCT CAGCCTCCTN TNNAGCTAGC 120
CTCCCCATCT CATCACAACG CATGTCTGTG ACCTTTGGTA ATCATTTACA GTGCCACACG 180
GAACCCTGTA TTTTGCACAC AGCAAAACAA ACAATGTTTA GCTTTATTTA TGGTATTTGA 240
TGCTGTAAAT GGAATAAAT ATTGTTCTTT ATAAA 275

SEQ ID NO:5584

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06636

SEQUENCE DESCRIPTION:

GATCTCTCTC GCCACGGCAC CGTCAGCTCC TTTGTGGCCA AGCTTTTCAT CTTTGTGTCT 60
GCAGAGCTCT GAGCACTCGC TTCGCGTCGC GGGGTCTCCC TCCTGTTGCT TTCCTAACCC 120
TGCCCTCCGG GGCCTTAATA AAGTCTTAGC AAGCGTCCCA CACAGTGAAA 170

SEQ ID NO:5585

SEQUENCE LENGTH:115

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06637

SEQUENCE DESCRIPTION:

GATCAGCTTT NAGAGTGGTC CTAAGCAGTA AACTGGATGA TGTTCGATTA GAAAAACATC 60
AATACTTCAT ATTTAAGTNT NAGTAGTTAC TACTGATTNG ATAATCACTT AANTN 115

SEQ ID NO:5586

SEQUENCE LENGTH:254

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06638

SEQUENCE DESCRIPTION:

GATCCTTGTG GACTGCCACT GCTGGCTGCC TCCTCTCCAA CTCATCAGAA GAGCATTITG 60
ACAAAGACAG AGGACTTGGA CCAGGGCATG CCCTGTTGGG GATGTTTCTG TCAGCAAGGA 120
CATGGCATGG AATCAAGTGG GCTGATGTGT TGTTATTTAA ACAGTACCAA AGTGCAITCT 180
TCAATGTATG TTTGCCTGCT TGAAGCAAAG CCCAAGTTGA GAATACAGTA AAGGNAACTC 240
ATGAAAAGTGA GAAA 254

SEQ ID NO:5587

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06639

SEQUENCE DESCRIPTION:

GATCCCGCCC TGACCCAGAG GAAGCCTCTA TTTATTTATT AGCTTTTGTT TACACCGTGG 60
AATTGACCCC TTCCTCCAGG GGTCTTGGGT GGGGGAGCCC AGGGCCCTG TGACCCCTCC 120
TTTCTTCCTC CAATCCCCAG TTTGTATTTA GCTGCCAAAT AAGATTCCCA TTGGNTCCCT 180
GTGTTCTCTT GGGGGGTCAG GGTGCTGTCC CCTNCNNTCT GTTACATCT CCCCTNTACC 240
CCGCTGTATC GCATATTGNN GAGTTTNCTA TTTTGCAAA ATAAAGTGAT GGAAACTCAA 300
A 301

SEQ ID NO:5588

SEQUENCE LENGTH:206

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06640

SEQUENCE DESCRIPTION:

GATCAGAGAA AATACGGTAC ATGTCCCAT GGAGGATATG GCTTGGNCTT GGAACGATTC 60
TTAACGTGGA TTCTGAATAG GTATCACATC CGANACGTGT GCTTATACCC TCGATTTGTC 120
CAGCGTTGCA CGCCATAACC ATTTCTCCA GAAGCGTGGA GGAAAGATTA TNNAAGGANC 180
AGGCTCTTCA AAAAAANNAN GNNAAN 206

SEQ ID NO:5589

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06641

SEQUENCE DESCRIPTION:

GATCTTCTTC ACACCAAGCT CATGGTTACA TNCCGTGAGG TGTCATGAAG AAAGTNCGTG 60
TCAATAAGGT TTTGTAATGT TAAA 84

SEQ ID NO:5590

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06642

SEQUENCE DESCRIPTION:

GATCTGTGGC TGGAAATNGAG GGAGCGCCTG CTTCTTCTCC AGCTTGGAAA AACAAATAGGA 60
GAAGGGTCAG CTCGCGCGGG GCATCATCCC TACCAGATTG AGTGTTTTGC ACGCACTTCA 120
ATCACAAAAT AAAACAGTGA GAAAGTCAAA 150

SEQ ID NO:5591

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06643

SEQUENCE DESCRIPTION:

GATCATCATA TCAAGATGAT ACCAAAAGTA TGTA AAAAGA AACCTGCATT ATTTTGTAAAT 60
NATTTCTTAT AGATATTCA TGGTAAGATT AGCAGTCAAT AAAGTTACTT TTTTNCCTTT 120
AAA 123

SEQ ID NO:5592

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06645

SEQUENCE DESCRIPTION:

GATCCTGCAA ATATCTTCTT TCCAGTTTGN TATTGTCAAT TGNCTTTTGA CTTTGTCTG 60
 GTATTTTTTG NTATGTAGAA ATNTTATTT TCATGTAAGC AAATTTATGA ATCTTTGNAC 120
 ACCATAAGTA TATACAATTA TGATTTGTCA ATTAAAAATA TTAGTACAAA 170

SEQ ID NO:5593
 SEQUENCE LENGTH:101
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06646

SEQUENCE DESCRIPTION:
 GATCATCCGG TGAAAGAACC AGTCCCTGNG CCCCAAGGAT GCCGGGGAAA CAGGACCNTC 60
 TCCTTTCTCG GAGCTGGTTT AGCTGGATAT NGGNGGNTTT N 101

SEQ ID NO:5594
 SEQUENCE LENGTH:104
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06647

SEQUENCE DESCRIPTION:
 GATCTCCGTG GGAACATTTT CGTTGCTGTC GGTGCTGGCA GGAGCCTGTT TCTTCCTGGT 60
 CCTGAAATAT AGAGGCCTGA TAAATACTG GTTTCACACT CAAA 104

SEQ ID NO:5595
 SEQUENCE LENGTH:91
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06649

SEQUENCE DESCRIPTION:
 GATCGTGCTG CACAACCGGA GAAGACAGAA TTACCTCTGC TCTTTTAATA TATAATGATG 60
 GCTTTAAATA AANTTAGGAG AAAATGTCAA A 91

SEQ ID NO:5596
 SEQUENCE LENGTH:126
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06650

SEQUENCE DESCRIPTION:
 GATCCAGAGA GTGGGGGTGA GGGGTGGGCC CTGAAGACTT TTTGTCTGTA GCTCTTGCAT 60
 ATTGAGTGTA TAAACCGGC TTCTGGACCA ACCCAAGATG AATAAACTGG GGCAGAAAAT 120
 TACAAA 126

SEQ ID NO:5597
 SEQUENCE LENGTH:393
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS06651

SEQUENCE DESCRIPTION:

5 GATCCTGGTG GCCACCAATN TGTTTGGCCG GGGGATGGAC ATTGAGCGAG TCAACATCGT 60
 CTTTAACTAC GACATGCCTG AGGACTCGGA CACCTACCTG CACCNNGTGG CCCGTGCGGG 120
 TCGCTTTGGC ACCAAAGGCC TAGCCATCAC TTTGTGTCT GACGNGAATA ATGCCAAAAT 180
 CCTCAATAAC GNCCAGGACC GGTTTGAAAT TAATGTGGCA GAACTTCCAG AGGAAATNGA 240
 CATNTCCACA TACATCGAGC AGAGCCGGTA ANCACCACGT GCCAGAGCCG GNCCANCCTG 300
 10 AGNCGACCGT ATTGTAGCTT TTAACNCCC TTNCCAGGC GACCATTTTT TGNGAAAGTT 360
 NGAGGTTTGT TTTNNTGGNT TTAACTTTN TTN 393

SEQ ID NO:5598

SEQUENCE LENGTH:69

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06652

SEQUENCE DESCRIPTION:

20 GATCAGAAGG CTCTGGNCAA GAGAATGAAA ATNAGGATGA GGAATAATAA ACTCTTTTTG 60
 GCAAGCAAA 69

SEQ ID NO:5599

SEQUENCE LENGTH:85

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06653

SEQUENCE DESCRIPTION:

30 GATCTCTTTG TCCCTGAGGT GTCAGCTGCC AACAAGAAGC ATTAGAACAA ACCATGCTGG 60
 GTTAATAAAT TGCCTCATTC GTAAA 85

SEQ ID NO:5600

SEQUENCE LENGTH:149

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06654

SEQUENCE DESCRIPTION:

40 GATCTTGGAG TCGTGGAAC TGTGCCCCAC CGGGTCCTGC GCCGTCAGCA CAAGCCACGC 60
 TTCACCACCA AGAGGCCCAA CACCTTCTTC TAGGTGCAGG GCCCTCGTCC GGGTGTGCCC 120
 CAAATAAACT CAGGAACGCC CCGGTGAAA 149

SEQ ID NO:5601

SEQUENCE LENGTH:120

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06656

SEQUENCE DESCRIPTION:

50 GATCGATGTG CTCAGCCAAA TNCCTGTTT GAAATATCAT GTTAAATTAG AATGAATTA 60

55

TCTTTACCAA AAACCATGTT GCGTTCAAAG AGGTGAACAT TAAATATAG AGACAGGAAA 120

SEQ ID NO:5602

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06659

SEQUENCE DESCRIPTION:

GATCAAAACC AAAAAAATG NACCAAAGGC TTGGGTGGTG AGGGTGCTTA TCCTTTCTGT 60
TATTTTGTAG ATGAAAAAC TTTCTGGGA CCTCTGAAT TACATGCTGT AACATATGAA 120
GTGATGTGGT TTCTATTAA AAAATAACAC ATCCATCGGA AA 162

SEQ ID NO:5603

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06660

SEQUENCE DESCRIPTION:

GATCCTGTTC TGTAATAAAC ATATTTTGCC TTGAGTAAAT TTGTTGTAAG CTAAA 56

SEQ ID NO:5604

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06661

SEQUENCE DESCRIPTION:

GATCCTTCTT GTATCTTGAA GTTTTGTACT TGGGATTCTT GGAATGATAA ATGAATCATC 60
ACATTCTTCT GGTAATATT TTCTTGAAA 90

SEQ ID NO:5605

SEQUENCE LENGTH:219

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06662

SEQUENCE DESCRIPTION:

GATCTGAAGA AGATGATGAA GTTGTGGCAA TNATTAAGGA ATTGTTAGAT ACTAGAATAC 60
GGCCAACTGT GCAGGAAGAT GGAGGGGATG TAATCTACAA AGGCTTTGAA GATGGCATT 120
TACAGCTGNA ACTCCAGGGT TCTTGATCA GCTGCCCTAG TTCANTCATT ACTCTGAAAA 180
ATGGGAATNC NGNGCATGCT GCAGTNTTAT ATNCCGNNN 219

SEQ ID NO:5606

SEQUENCE LENGTH:289

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06664

SEQUENCE DESCRIPTION:

GATCAACTGA ACCAGTATGC CAAAACCAGG CATCCAATTT GTAAACCAAT TATGATAAAG 60
 GACAAAATAA GCTGTTTGCC ACCTCAAAAC TTTATGAACT TCACCACCAC TAGTGTCTGT 120
 CCATGGAGTT AGAGGGGACA TCACTTAGAA GTTCTTATAG AAAGGACACA AGTTTGTTTC 180
 CTGGCTTTAC CTTGGGAAAA TGCTAGCAAC ATTATAGAAA TTTTGCTTGG TTGCCTTATC 240
 TTCTTCCAAA TGTACTGTTA AATAAAAAATA AAGGGTTACC CCATGCAAA 289

SEQ ID NO:5607

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06666

SEQUENCE DESCRIPTION:

GATCTGGAGC ATTTGAANCA AGTTTATAGA AGANCATGCC AAAAACTAA GCAGGACCAA 60
 GGAAGAGCTT TNAAGGCCTG AGGTCTGCGG AAGGTGGGAG GAGGCAGACG CCCTGCNTGG 120
 CCCATGGTCG GGGCGTCCAC GGCAGGGCCG GCAACAAACG GCAGTATCTN GNATTCCTTT 180
 TTTNTTTTTT NAAATTTTAA ATNCTTTGGT NTTTCN 216

SEQ ID NO:5608

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06667

SEQUENCE DESCRIPTION:

GATCAGAATT ATAACCATGG AGAATTTTTT CTTCTGAGCA TTTTAATATA CTTGAAAACA 60
 ACATTGACTT GAAAAATTTT AGAACATTTT TCAGTACCTA GTTTTATTAA ATATTACACT 120
 TGAGAGACAC TTTTAAAAA TGTGTTAATG TCAATATGAT GAGATTTTAG CCTTCTCCA 180
 GAACTAAGGC ATTAAGAAA ATAGCAAATA TTAATAATA AAAGTGTAC TTTTTCCTT 240
 CTTTCTTTC ACCTTTAGGT TAATATCCAG TATTATGTGT TATCCNTTG GATAAGTATG 300
 CTTTATTTTA CCTCNGTTAA AAATTAATAA AAATGATTTC TATTCATAAA 350

SEQ ID NO:5609

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06668

SEQUENCE DESCRIPTION:

GATCCTNAAG AGAGCTGTCC CAGCACTCTG GCCACCAGGA GGGCCANATT CCCCANAAC 60
 TACCTNTTGC CCAAAGAACA TNCTCAGTAT TTGGGGCATT TCCTN 105

SEQ ID NO:5610

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06669

SEQUENCE DESCRIPTION:

GATCCCAGTG TCTGAGTGAA CTAACAGTCC TGCTTTCAGC CACCATTTGT ACAAGACACC 60
 CAGCACTGAA AGTCCCGCTG CCAGGAGCAA GGGATTCTTT GGAAGCACCC GCCCTTTGTG 120
 CCTTGTTGGG GGAAACCGGT GACGCAGTAG TGAGTGTGGA TACACCAGAG TTTGCATTGG 180
 AAGGAATGAG TGTCACGTGG GGAGGGAAGG GGCCAGTGGA CCTTTTGTA GCTTTCCTACT 240
 CAATAAAATG AACCTGTATG GCAAAA 265

SEQ ID NO:5611

SEQUENCE LENGTH:138

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06670

SEQUENCE DESCRIPTION:

GATCCATGTT GAACAATACA TGTAGTTCT TTTCCACGC AATGTAAGAN CATGATATAC 60
 TGTACGTTGG AAAGCATTTA CCTTATTTAT ATACCTGAAT GTTCCTACTA CACAAATAAA 120
 CATATATTAA ATTCTAAA 138

SEQ ID NO:5612

SEQUENCE LENGTH:160

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06672

SEQUENCE DESCRIPTION:

GATCTGTCAT GCCCCACCGC CACCCCTACT CCCTTCAACC CTCCTCTTT CTGCCCATT 60
 CCTCCACCC CCTCACTCCC ATTTCCCTAGC AAAATCAGAA GATTGTGAAG AGGCCGGCTT 120
 CAACAAAATN GGATAAANAN ATAATTTTTT AAAACTTAAA 160

SEQ ID NO:5613

SEQUENCE LENGTH:217

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06673

SEQUENCE DESCRIPTION:

GATCCTATGT NCTGCTTGCA CAGAGGCCTT TGGATTTTAA CCCAGGAGNT TCGNGAGNTG 60
 AGAGCTGCCC TGTCTTTNAT TGAGCCTTAG CATTTCCTC TCAGGCTTCC TCTCAAGCTC 120
 AAGGAACTCA CCCCAGATA AGAAGCTGGT GCCTCTTGTC TCTCTNATTT CAGAAACGGA 180
 CTTTCTNATC ATGCTTTCCT ATGGTGGGTA TGNGNNN 217

SEQ ID NO:5614

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06674

SEQUENCE DESCRIPTION:

GATCCCAGAA TTCAACCTGT ATTTATAGAT GGATAATGTA NTTAGCTAAT TTTTGGTTTA 60

AATGANCTTN TTGGGTTAGC TTNCGTAAAT GNTATAATTT TTACTGTTN 109

SEQ ID NO:5615

SEQUENCE LENGTH:267

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06675

SEQUENCE DESCRIPTION:

GATCCCCAGC TGGACTCCCC ACCCCCTGGC TTCCCCACCT CTCCAGGNGT CAAAGGTGAA 60
CCGAGTCCAG TATTAGCTGA ATGTCATTTT GTACACCACA GTCAGTCAG CCCATGGGCT 120
TCGTGAACTT TGCTCCAACA CACTGATGTG TGGGCTTCCC ACAGCAGGAC TGAATTCCCC 180
CTTCTGTTG TTTGCACATN CCCCTCTTAC TGTACTGTCA ATAGATATTT TTGAGATTTA 240
TTTTTAAATA AATATTCAAC TTGAAA 267

SEQ ID NO:5616

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06676

SEQUENCE DESCRIPTION:

GATCAATAAT ATATAAATN TGAGTGTGGG TTTGTATCTA ATAAAGTATG CCAACACCAA 60
A 61

SEQ ID NO:5617

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06677

SEQUENCE DESCRIPTION:

GATCTTGAGG CCCAACATGC TTGACTCTGC CAAAAGTCT CCTTCCTCAG CAGGATGCAG 60
CCTATTACAC TCAGCACAGN ATCTGGCACT CTTAGGTTCC CGGTCCATTT CAAACCTCCT 120
GCAACCAACA AAAGGATAGT TCCTTAATAA TTTGTCAAGC CTACCTAGGG CACTGCTAGT 180
AGTCTTACCA TTATTCACAA ATAGGGCTGA AACATCTAAA ATTACCCAC TTAGTATTTT 240
ATATCCCTTC AACGTTCTAT CCTAAAGCTA ATGTTTCTTA GTGCTAATTA NAATCGTCAG 300
TCTATTGACA NTNTGACAAA GGGTAAGAAA 330

SEQ ID NO:5618

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06678

SEQUENCE DESCRIPTION:

GATCCCAGGN TTCTGCGGAC CGACGATACG TTTAAATGTT GTTCTAGTAA ATATTCTTGA 60
ATGTATTTAA ATGGCTGAAA CAAA 84

5 SEQ ID NO:5619
 SEQUENCE LENGTH:244
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06679
 SEQUENCE DESCRIPTION:
 GATCGTGTTC TNTAGATGAA ACCATCAAGA ACCCCCGCTC GACTGTGGAT GCTCCACAG 60
 10 CAGCAGGCCG GGGCCGTGGT CGTGGCCGCC CCCACTGAGA GGCACCCAC CCATCACATG 120
 GCTGGCTGGC TGCTGGGTGC ACTTACCCTC CTTGGCTTGG TTA CTTCATT TTACAAGGAA 180
 GGGGTAGTAA TTGGCCCACT CTN TTCTTAC TGGAGGCTAT TAAATAAAA TGTAAGACTT 240
 CAAA 244

15 SEQ ID NO:5620
 SEQUENCE LENGTH:102
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06680
 20 SEQUENCE DESCRIPTION:
 GATCTTCATT AGTCAAGNTT TAGTTATTN GTTGGCTTTT CCATGTAGAT TTCCAAGTGA 60
 CATTAACATA CTTTNATTAA AGAAAATTG GAGACTGTN NN 102

25 SEQ ID NO:5621
 SEQUENCE LENGTH:71
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06681
 30 SEQUENCE DESCRIPTION:
 GATCGGGCCC CATGTCTGTG CTGTCTAGTT TGTGTTCAA ATGTCAGAAT AAACACAGAA 60
 TAAATGTTAA A 71

35 SEQ ID NO:5622
 SEQUENCE LENGTH:269
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06682
 40 SEQUENCE DESCRIPTION:
 GATCTTTTAA AAAAGTTAAA GGACATCCTA GAGCCTTAAT AGTTAAGAAG NGTTAAATTA 60
 TCAAGCCTAT TTGTGCATT CT TTTNTG AAAAAGGTAA GTTGCTGATT AAGTCTAATT 120
 GGAATTGATA ATCCATAGT CTTAGATTAN NNTGAGGATA TTTCTCCTA GATTTCCTCA 180
 45 TGTNATGCCA TGCATTTATA TATCTNACCA TTAATTCAC ACTAAGGATG CTTCAACATA 240
 TAATAANNGG TGCANGNTGG AAGCAANN 269

50 SEQ ID NO:5623
 SEQUENCE LENGTH:375
 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS06683

SEQUENCE DESCRIPTION:

5 GATCTCCTTT TCCAGTGCTG CACACTCCTG GTTTGGAAGT TTAATGGCGT TGCAACGGAA 60
 TCCTATATNC AGTTTCCTGT AATTTAATTG AAGAAAAATG CATCCAAATN AAGACTTTAT 120
 TATTAACNGA CCAGATNGCA TCAGAAATCA TGTGTCTGTT ATNATTATCA GAATATGTCT 180
 TAACTTTTTN GGGCAAAGTT AACACTGAAA GTTCTAGCTT AAGTGTGGAN ACTTTTGTGG 240
 10 GGNAAAAAAN TCACTTTTGA AACTCAGACT TCAGNGTATA CCCANTAATT TAANGTTCNT 300
 GTGAAATGGT TTAAATGTGT NGGACTCGTA ATGACTGTTT TANTGGTTCC AGTTTCTNCA 360
 GNGTGGGTAN TTGGN 375

SEQ ID NO:5624

15 SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06684

SEQUENCE DESCRIPTION:

20 GATCTGATAA CTTGAATTCA GAATATTAAG AAAATGAAGT AACTNATTTT CAAA 54

SEQ ID NO:5625

SEQUENCE LENGTH:182

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06685

SEQUENCE DESCRIPTION:

30 GATCTGTTTT TATAAAGTGC TCCATGATTC TCTGAAAACA GTATACTATG TATCTAATTT 60
 TTGGATACAG GATGGACATA CGTACTCAAA CTGTGTTTTT CAATTTGTAC TGTATTTGTT 120
 TCTCTCGACC TGACTTAGTG ATAGAGGTAT ATTAAAGTNT TCCACTAGCA TGGTAGATTA 180
 AA 182

35 SEQ ID NO:5626

SEQUENCE LENGTH:367

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06686

40 SEQUENCE DESCRIPTION:

GATCCTATGG NTTTTCCCGG CTGGTTGCCA CTA CTGTACA ACATTCAGTG CCCACATCCA 60
 TCTNTGCCAT TAAGCTTTTT TGAGACATGA GAGATGCCTC TNCCTGCTG TATGACATGC 120
 ATTTGGGAAG TTGGAAAGAA ATGACAAANT CAGGGAGAAA ACATCCAAGC TTCTTACCTG 180
 45 TAGATAGANT CAGCCCTCAN TTGGTGCTTA TNACCAGTTA TTCANGAACA ATAACANCA 240
 CAAANTTAGT AGACATCCAA GAGGCACATA TTAGGGCCAA AGATAGCATC ANCTGTNTTT 300
 GAGGGANCTG TAGTTTTGCG CATTTTATG NCATTTTAT AAAGGTACTG TNATNTTTC 360
 ATTGANN 367

50 SEQ ID NO:5627

55

SEQUENCE LENGTH:336

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06687

SEQUENCE DESCRIPTION:

GATCTAGTTT GACTTTCTAG TTAGTGGTGT TTTGAAGAGG GTATTTTATT GTTTTTTAAA 60
 AAAAGGTTCT TAAACATTAT TTGAAATAGT TAATATAAAT NCATAATTNC NTTTCCCCTG 120
 TTTATTGTAA TGTATTCTAA ATTAATGCAG AACCATATGG AAAATTTTCAT TAAAATCTAT 180
 CCCCAAATGT NCTTTCTGTA TCCTNCCTTC TACCTATNAT CCTGATTTTC AAAAATGCAG 240
 TTAATGTACC ATTTNANNTG CTTGATGAAG GGAGCTCTAT TGCCNTTANC AGNAATTGTN 300
 GCTAAGGTAA TTCCNAATAG AAAGCTGCTT ATTNNN 336

SEQ ID NO:5628

SEQUENCE LENGTH:364

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06688

SEQUENCE DESCRIPTION:

GATCTTCTTG ACCTTCTCCA TCATCGCCAT CCTTTCCCAA AGGCCAAGGA AGTGACCTGC 60
 CTGCTGGCAT TGGCCAGACC ACAGCAGCAC CTCCTCCATG CAGGCCITAA CTTTCCCCTG 120
 GTCAATGCAG TTTTATCAG CCTTGCTTTG GATAGGACCT CCAAGGACTA AGGCCTCCAG 180
 CCCCATGTNT GACCCTTGTN ATCTCTCTGC CCCACATAAT TCTGTTACTT TGCTATGTGC 240
 TCCTAATGTA TCTAGTGTGT CCTGTGACAA CACTCATCAN ACTTCAGTGN AAATCACTTG 300
 GTTTTAATTG ACTGNTTNT CCTATAGACT GTAAGGNTCC ATGAGGGCAG GGCACATGTT 360
 GGTN 364

SEQ ID NO:5629

SEQUENCE LENGTH:347

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06689

SEQUENCE DESCRIPTION:

GATCCCCTGT GCCACCAGGA GGGAGTGGCA GCTATAGTCT GGCACCAAAG TCCAGGACAC 60
 CCAGTGGGGT GGAGTCGGAG CCACTGGTCC TGCTGCTGGC TGCCTCTCTG CTCCACCTTG 120
 TGACCCAGGG TGGGGACAGG GGCTGGCCCA GGGCTGCAAT GCAGCATGTT GCCCTGGCAC 180
 CTGTGGCCAG TACTCGGGAC AGACTAAGGG CGCTTGTCCT ATCCTGGACT TTTCTCTCA 240
 TGCTTTTGCT GCAGAACTGA AGAGACTAGG CGCTGGGGCT CAGTTTCCCT CTTAAGCTAA 300
 GACTGATGTC AGAGGCCCCA TGGCGAGGCC CCTTTGGGCC ACTTACN 347

SEQ ID NO:5630

SEQUENCE LENGTH:318

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06690

SEQUENCE DESCRIPTION:

5 GATCAAGGTG TGAATAACTG AAGAAAAATAA CTTGCTGGCT ATATAGGAAA ATGCTGTGGA 60
 AATGAACTGT GTATATACTT CTGGGAGGAA CAAATTTAAT CATTCTCCT GTTAAGCACT 120
 AATCAGTATA GTGCAACTCC TGGTTCTGTN CTGTATTNA TATGCAACAT ATATGCTTTA 180
 ATATTNNNT GTTTGTNCAT TAATATTNC AATTTGTTA ACCACTTTGC TGCTAAGATT 240
 TTNCCGTCCC ATTCCCATTT NTCCCTTTAC AATNNTAAC ANGTTCTTC ATTAAANNCT 300
 ATGGTGATGA AAAANAAN 318

10 SEQ ID NO:5631
 SEQUENCE LENGTH:185
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06691
 15 SEQUENCE DESCRIPTION:
 GATCTGTGGG TGTTTTAA AAACTCAAC CTATCTGGTG TTTATTTTA ATGGATAAAA 60
 ATGTAATTTT CCTAAGGTAG CAACTTATT CCAAATTAAT ATAGATGANA AATAGATNCC 120
 ANTNGACTA AATTGAAAGC TTTNNTCCT ATATTNCAT AGCCTTTGAG AATATTGNTN 180
 AGTGN 185

20 SEQ ID NO:5632
 SEQUENCE LENGTH:130
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS06692
 SEQUENCE DESCRIPTION:
 GATCAATAA ACTCANTTTT TTATGGTTAC TGTA AAAAGA CTGTNTAAGN CAGCTCAGCA 60
 CCATGCTTCT NGTAAAGCA GCTTCANTTA TCCACTGGGG TTATCTTTTG ACAACTTGCC 120
 30 ATTATCTGNN 130

35 SEQ ID NO:5633
 SEQUENCE LENGTH:123
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06693
 SEQUENCE DESCRIPTION:
 GATCTTAACA AGCTTAAAAA AGAATTTTAT GACCAGAATC CAACAAGAGC TCTATTTTGG 60
 40 AATTGTGCC AAGTTGGTGA TGT TACTCT AAAATTAATA ATAAACTAC TTGTAAGCAC 120
 AAA 123

45 SEQ ID NO:5634
 SEQUENCE LENGTH:235
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06694
 SEQUENCE DESCRIPTION:
 50 GATCTGAAC GCCTCCTCCT TTCTGTGGCC TCTNCCCCT TCCCTCTTCT CTTCAGCTAG 60

55

GCTAGCTGGT TTGGAGTAGA ATGGCAACTA ATTCTAATTT TAATTTATTA AATATTTGGG 120
 GTTTTGGTTT TAAAGCCAGA ATTACGGCTA GCACCTAGCA TTTCAGCAGA GGGACCATTT 180
 TAGACCAAAA TGTACTGTTA ATGGGTTTTT TTTTAAATTT AAAAGATTAA ATAAA 235

5

SEQ ID NO:5635

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

10

CLONE:HUMGS06696

SEQUENCE DESCRIPTION:

GATCAGCTA CTGCACTCCA GTCTGGGCAA CAGAGCAAAA TCCTATCTCA AAAAATATAT 60

ATATATTATC CAGCCCCAAA TGTTTATGGG GTTGTATTG ATGAACCTG CATTAAACAA 120

15

TCCCACAGTC GGTGCTGCGG TGAGCCGTGA TGGGTACCAC TNCATTCCAG CCTGGGTGAC 180

AGANTGAGAC CCTGTCTNNA AAAAAAANGT NNAANTTGT TTCCCNATAT TTTGGNNGGA 240

TTNGTGGGGN 250

SEQ ID NO:5636

20

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06697

SEQUENCE DESCRIPTION:

25

GATCTTGTGT ATTTTGTCC ATATCCAATG TTATATGAAC TAATTGTATT GTTTTATACT 60

GTGACCACAA ATATTATGCA ATGCACCATT TGTTTTTTAT TTCATTAAAG GAAGTTTAAT 120

TTAAATTGAA A 131

30

SEQ ID NO:5637

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06698

35

SEQUENCE DESCRIPTION:

GATCTTAATG GGCAGGGTTA AGAAAGTTAT TTAAAATAAA GTTACCTATT CTACTAAA 58

SEQ ID NO:5638

40

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06699

SEQUENCE DESCRIPTION:

45

GATCAGAGTG ATGTGTTATG CAGAGAATTA AAGGGTGATG TGATAAAGTG ATTGGGTCGT 60

GCTTTATGTT GGCAAAAAAA ATCTGGAGTA TAAGAAGTTG CTGACTTGGG TGATTTGGAA 120

GAGATTGGGA GACTGGGGGG ATTCAGANCT GAAGGANCAG GCTATAGGCT GTAAGGCAAA 180

ANTATACTTG CNATGTTCAA ATTACTNAGA GGNTTNTACC NNCNTGCTTT TCTTTAAAAA 240

ATAAACNTTN 250

50

55

SEQ ID NO:5639

SEQUENCE LENGTH:354

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06700

SEQUENCE DESCRIPTION:

GATCTTGTTA TTGATTAACC ATTTTCTTAT GCCTTGCTAT TGACATATTC ATGCTCTTTC 60
TACGTCTAGT GGCTGAAAAT NTTTGCATTT GTTCATTTGA CTAATGGTGT GATTTTNGTT 120
TCTATATTAT NAGACCTGTA ATGTTTTAAA ATGTATTNA TTAATTTGG ACTGGATGTA 180
TGTCTCTAGC AATACGAGGT ACTTTCTAAA CTATTAAGGG AGGGGTTGTA TCCTCATGTT 240
GAGATAAGAT GATGGTCGTT TAANTTTNGC AATTTTTTTT GGCCTGCAGG GATATTTTGT 300
GTTTATGTGT CAAAAANNGG ANTAANTTGG CATTCTTGTG CCAAANGTTG TTNN 354

SEQ ID NO:5640

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06701

SEQUENCE DESCRIPTION:

GATCTGCATT CTGTAAAAGA GGTACTTTCC CATGATGTAG GCATGAAGTG GTGCCAGTAA 60
GCGTAGAGCG GAAATNTTGA CTTTAGTTAA CATTGGGTNT AGCATTCCA GTGCAGCATT 120
ATCAGTGGGC CTTTAAAAAT ACTTCGTAAG TACATTAGCT TTCACITTGT NGTNAAATTA 180
TAGCAGACTC ATTATAGAGA ACAAGTTTGC CTTGATTNN TTTAAAATGA CTTCTGCTAA 240
GCACCCAGAA GATAAANTTG ACATATTTT NTAAATNTAAG CATACTTTT TNGTACATNG 300
TGNCATTCT TGANTAANAT GNGGTTCTGT GTTGGCTTGT NN 342

SEQ ID NO:5641

SEQUENCE LENGTH:272

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06702

SEQUENCE DESCRIPTION:

GATCCAGTAT AATTNCAGAT TCTNGTGTCC CATCGAAGTT TCTAGCAAGA GGACTGTTGT 60
CACATTTCTT TCTTGGACTC ATTACTGGTC ACTGAAAACC AGAAGAAGTT GGTGAACCAT 120
CTAAAGAAGA GAAGGCTGTG GNCAAGTATC TNCGATTCAA CTNTCCAACA AAGTCCACCA 180
ATATGATGGG GTCACCGGNT TGATTATTTT TTTGCTTCAA AAGCAGTGGN CTGTNTTTNG 240
GGATTCAAAG NGGGNAAGT CCANGTANTG GN 272

SEQ ID NO:5642

SEQUENCE LENGTH:264

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06703

SEQUENCE DESCRIPTION:

5 GATCGCAATG AATTTNTAAA ATTACTATTT AANATATTGT TGAGATTCCA TTACCTCCAA 60
 TCAGTCTTGG GACATTAGAA CAGTGGTATA ATTAAGACTG TATGTTTAAA TTGAGAAATT 120
 TTGCACAACT TTAACAAGTA GCAGANCTAA TTGTNCACTG ATGGCTTTAA AGATGAAATA 180
 NTICTGTGAA TNCATGANAC TGTGAGGGNC TCTNCGTGGT TGTCTAGGTT TATTTATATG 240
 CATNCTCATT AATNAAAGTN NTTN 264

10 SEQ ID NO:5643
 SEQUENCE LENGTH:247
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06704
 SEQUENCE DESCRIPTION:
 15 GATCTTTTTT ATTTTATAC ACATGACAAG ATTTTACATC AAGAATAGTC AGTTAAATAG 60
 TACAAATTTA CATTATGAG GAATGTTAAA AAAAATTCAT CTAAAAAACC CACTTTTTCC 120
 TGTGACCCAT AATCCACAT TTTACAGTGC AGGGGAGAAG GGGATTAGGG GGCATNCAAA 180
 ACAAGTCTCT CCCAAAAAGA AAAATGCAGG CATGCAGGGN CGGCGTAATC ANTNCCCNGN 240
 NNNNNNN 247

20 SEQ ID NO:5644
 SEQUENCE LENGTH:318
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06705
 SEQUENCE DESCRIPTION:
 25 GATCCATACA GGTGTGTGT CATCTGTCCT CTTGAGGTTT AGGAGATTCT AAATTGAATA 60
 TTCCACGGTT TGGGACAGCA TNCGGAAGTT TTCCCTATNA CTTTATATTT TGTATTATGT 120
 30 CAAATGTTAT GGCAGGGCCC AAATAGCATA GCCACAAGTT TGGTTTATGT GGGCATAAAA 180
 TTCTAACCAA ACCCCAGACA TAGGGAGTCA TTTGGAGAAA GCCTGTATGT GGTGTTTTAA 240
 CCTAATAAAG TTGATGAGAG AGAAGGGGAG AGGAAGCGAA CATAAAGCGG GTCAAGTGTA 300
 GTGCATCTTT TGTATTGN 318

35 SEQ ID NO:5645
 SEQUENCE LENGTH:197
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06706
 SEQUENCE DESCRIPTION:
 40 GATCTTTTGA CATACTCACT TTGAGTGGCA TATGCCCAGG AAAATATTTA AAAGAAAAGAA 60
 AAGCTATTTT TACAAAGTTT TCTAGCAGTT CCACTCAGAT AACTTTAAGG GGGAAAAAAG 120
 45 CCCAACGNTT GGNNATGGTT AAGTAAATTT NNGTGTATTG CTAGTGCTAT CNCNGANTGT 180
 GTATGATGGC CNTNCAN 197

50 SEQ ID NO:5646
 SEQUENCE LENGTH:210
 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS06707

SEQUENCE DESCRIPTION:

5 GATCCCCCGA ATAACITTTT TCAATCAAAGT TGA AAAACCA AACAGCTATG TAAAGTCCCC 60
 AGGAGAGCTC TTTTCCCTT ATNTNCTCAT TTNTTTTGTT ATAACTGTT TAAATAGTTC 120
 AAATGGTTGT NCATGCCCTAG GGGATGAAAC CTATGTAATA GAAATGTACT GTTTATGAA 180
 TAAGGAGTAA AATTNTTTTA AAAAATTAAA 210

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SEQ ID NO:5647

SEQUENCE LENGTH:372

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS06709

SEQUENCE DESCRIPTION:

20 GATCTGAAAC AGAAACCACC CTCGGAACC GCCCAAGAAA GGNCTGCTCC ANANACTCTT 60
 CAAGCGGCAG CATCAGAACA ATTCCAAGAG TTCGCCAGC TCCAAGACCA GTTTAAACCA 120
 CCACATAAAC TCAAACCATG TCAGTCGAA CTCACCGGA AGCAGCTAGT TTCGGCTCTG 180
 GCCTCAAAGT CCACAGTGA ACCAGCCAG ACCCTTCTCC TTAGAAGTGG AAGTAGTGA 240
 GCCCTGCTC TGGTGGGGCT GCCAGGGGAG ACCCGGGAG CCGGGGAAGG AAGGCCGTCC 300
 ATCCCGTCGA CGTAGAACCT CGNGGTTTTT TCAAAGNAAT TTCCACTNNG GTCTGTTTTT 360
 NCGAGGGGGG NN 372

25

SEQ ID NO:5648

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30

CLONE:HUMGS06710

SEQUENCE DESCRIPTION:

35 GATCCTTGGT ACCCCTAAAA AGATTGCCAA TTTTTTTCAT CTTTGCCATA TGGAGGACTG 60
 TGACAGACTT TGGACAGTGG CCTCTTGAGT TCCTCTGCAG TTTTGACATT TAGGATTTTG 120
 TGTCTTTTAA ACTGGAAAAT CTCTAGCAT GTTGGGTGT TACAGAGTAT ATTTTGTCT 180
 GCAGCTGTTT GTTGCCCAT TCCTAAGAGG AGTTATCCA TCCNGAAA 228

40

SEQ ID NO:5649

SEQUENCE LENGTH:193

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06711

SEQUENCE DESCRIPTION:

45 GATCAAAACA AGATTTTCCC AGTAAGAATA TACTGGGACA TAACAAATGA AAATATTTAT 60
 ACCAAAATAC CAAAAGTNAT TCACCTCTTT AAAATATCCT ACTATAGTCT AATTAGTAGC 120
 TTGTNCAAGA CCAAGTAACC ATTTTNNCT GCNCTTTTGA NTGATGATTA GAAATTCAAA 180
 CAANGTATTT NNN 193

50

SEQ ID NO:5650

55

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06712

SEQUENCE DESCRIPTION:

GATCCAAGTG CGGAANTCAC AGAAGGAACG GATTACAATT CTCCTNCAGN TAGGGAACCC 60
CTAAGNCCAC AGAAGATAAG GAGGAAACAA TACAGAACT AGAGACCCTG GAGAAGAAGG 120
AAGAAGAAGT AACTTCAGAG GAGGATGAGG AGAAAGAAGA AGAAGNAGAG ANGNNN 176

SEQ ID NO:5651

SEQUENCE LENGTH:273

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06713

SEQUENCE DESCRIPTION:

GATCAAGTTT TTAAGATTGT NCTNTTATTG TTTTAAATTA AGAACTTTTT GAACTAAAC 60
CAGAACTCT GCCATAGTTC ATTGATTTTA ACATGAAACA TTTATTTACA AGATGATATC 120
AAGATTACTT TTCACAAAT AGGCACATTA TATCANCCT TTGCNCTGCT TTGTAAATTT 180
NCCATCCAGG ATTTTGGGGT GGTATTCATG TGAAATTAAG GCAGATTCTC TAGCAGTTTC 240
CTATAGCTAC AGTTTTNNNN NTNCCCTGG NTN 273

SEQ ID NO:5652

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06714

SEQUENCE DESCRIPTION:

GATCCTGTGT GGAGAGGGAA TGTGAAATTA ACATCATTTC TTTTGGGAG AGACTTGTTT 60
TGGATGCCCC CTAATCCCCT TCTCCCCTGC ACTGTAAAT GTGGGATTAT GGGTCACAGG 120
AAAAAGTGGG TTTTAAAGTT GAATTTTTTT TAACATTCCT CATGAATGTA AATTGTNCT 180
ATTAACTGA CTATNCTTGA TGTAAGANCT TGTCATGTGT ATAAAAATAA A 231

SEQ ID NO:5653

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06715

SEQUENCE DESCRIPTION:

GATCAACATG GTGGAACAAA ATGATAAAGA NCAGAAAACA TTTCAATATA TTACTAATAA 60
CTTTTCCAA TATAAATCCT AAAATTCCTA TAACATAGTA TTTTACAGTT TTATGAAGCT 120
TTCTATTGTG ACTTTTATGG AATTAAGAGA TGAAGAAGAT GAGATATTTT AGCATTATA 180
TTTTTCAAAA TTATATGTAT ACTTAANANT AANGTANCTT TATGCAAA 228

SEQ ID NO:5654

SEQUENCE LENGTH:182

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06716

SEQUENCE DESCRIPTION:

GATCACAACT GTGAAAAA ACTGCACACG CAAAAGACTA CAGGGAAATA TGTAATTNAT 60
TATNTTGTTC TCTCTCAGTG ATAAGATGGG GTGGTTTCTT CTTTGTACTT TTGTATTAAAT 120
TTCTTACGGT GTTTGTATTA CTTTATAAT CAAGAACTTT GTTTAAAAA ATAAATCAGA 180
AA 182

SEQ ID NO:5655

SEQUENCE LENGTH:93

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06717

SEQUENCE DESCRIPTION:

GATCGTAGCT AGTTTGTATT GTCTTGTCAG TGTACAGAC TTTTAAAAA AAACAACCAC 60
CAGTGAAATG TGTGTGTATA CAATAAATG AAA 93

SEQ ID NO:5656

SEQUENCE LENGTH:331

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06718

SEQUENCE DESCRIPTION:

GATCAACATT TATGACCTAA GTCAGGTAAT ATACCTGGTT TACTTCTTTA GCATTTTNAT 60
GCAGACAGTC TGTATGCAC TGTGGTTTCA GATGTGCAAT AATTTGTACA ATGGTTTATT 120
CCCAAGTATG CCTTAAGCAG AACAAATGTG TTTNCTATA TAGTTCCTTG CCTTAATAAA 180
TATGTAATAT AAATTTAAGC AACGCTCTAT TTTGTATATT TGTAAGTAC AAAGTAAAT 240
GANCATTTTG TGGAGTTTGT ATTTNGCATA CTCAAGGTGA GANTTAAGTN TTAANTAAAC 300
CTATAATATT TNNCTGANA CNCNNGNACC N 331

SEQ ID NO:5657

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06719

SEQUENCE DESCRIPTION:

GATCAAGCCA AAAAATCCAC CAGGAANTCC TACTGACTCT CTTTNTAAAA TATAGTCATT 60
TAACNGTCAA AAGAGTCCCC AATAATGTCA GTNCTAAGAT TNCCCCTATT TTTAAAAAA 120
ACAAAGTAAA TGAAGACTCA AAGAGCAAGT AACTAGTCTA AATTAGATAG TCACAGGTGG 180
TAAAGCCAGA AATCTGTCTG GNCAGTCTAA CTCTATACAN CCCAGGCTTT TAANTATTAG 240
AAAGCNNNNN 250

SEQ ID NO:5658

SEQUENCE LENGTH:409

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06720

SEQUENCE DESCRIPTION:

GATCTCAGTA TCATACTGAG ACACCTCCCC TGAGCCTTAC CTACTTAAAT TGGTAACCGT 60
 CCTACCAAAA TTTGTCAATT TNAATCAAGT GAGGCAAGTT GCAAGGGAGC CAGAGATACG 120
 TGAAAAAAGA AAAGCAGAAA TACTGATACT TTCTAAGAAA GAAGTTGTAA TAATTNCTTT 180
 GGCACATTGA CTTACTGATA TCTTTTGAAA TGCATAGATG ACTCTTGTGA ACCAANGAGA 240
 GCAGTNGTGG TTNTTCCCCG GCGCAATAAA AATGCCTTTG TGTATCACTT GCGGTTGCCA 300
 GTCATTTCTG GTGCCAGTTG CTTTNTNTNN CCAGAGGTTT GGCCTTNATT CTTCCGAAAN 360
 NAGGGTGATG ATTNTNGAA GNTGGGGTTT TCCTNACCAN ATTATTNTN 409

SEQ ID NO:5659

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06721

SEQUENCE DESCRIPTION:

GATCTGGAAG AGTCAAGAGA AGAGAGCAGA AAGCAGGCTC TTGCTGCTAA AAGAAA 56

SEQ ID NO:5660

SEQUENCE LENGTH:69

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06724

SEQUENCE DESCRIPTION:

GATCTAAAGA TGATGGAAAA CATCAGCTAC ATTAAATACT CATAAGCAAA ATAAAGGCTG 60
 GCCTGTAAA 69

SEQ ID NO:5661

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06725

SEQUENCE DESCRIPTION:

GATCCAAAGG GAAGGGACTA TGCAAGGGCA TTTATAAAGC NTGGACAAGG GTTCATTATA 60
 GAACACCANT GTNATGGACT ATCCCAAGCA TGTACCACTG TGTCTCATGC ATGGTAAAGG 120
 TCCCATAAAT GTTATTGCTC TCTTGCACTA TAGTAGTAAT AGTAGTGGTA GCTGNTTTAG 180
 GAGTAAAAAC AGCNAAAAAAN AGANNNNN 208

SEQ ID NO:5662

SEQUENCE LENGTH:326

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06726

SEQUENCE DESCRIPTION:

GATCTGAAAA AAAAGTTTCA CCGTTTGT TTCTACCTCA TTTAAGAAG CATGTGAAAA 60
 TGGGATACTA TAGACTACTG AGAATTTTCAG AAATTGAGAA CAATTTTCATA ATAAAACGGC 120
 TATATTTTGA GAGAGANTAC ATTTTATATA ANCAGGAAAA TACATTTGAC ACTTTATGGA 180
 ATTTNATGAG ACTTTTGTG GGAACAGAAG GTCTTCAAAT TGTAAGATGT AAAGNTTGCN 240
 CTNTTTNTTA NGTCTTTAAC AGGGGTGTNT TTCATTGTNT GTTTTGGGTA TGGCTTTGGN 300
 ATAANTCATT NTATATNTNA NTTGAN 326

SEQ ID NO:5663

SEQUENCE LENGTH:227

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06727

SEQUENCE DESCRIPTION:

GATCTGCACA GTTTGGTTTT TGCACAAAAG TCATTAAAA AAATCTGAGT AATTGTCAAA 60
 TATTAAGAAGA AAGNTATTCT TCCTGGTAAG GAATACAGTT TTNAGTCAAA GTGGCCATTA 120
 CATCCNCTTT TNAATTTACA TAATACAGNT ACTTGTGAAA GTTGTGTGG TGTGTATGC 180
 CAAGNNAATN CTTTTTATT GGTGCCTATA TTGTCACANT TNTNTN 227

SEQ ID NO:5664

SEQUENCE LENGTH:324

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06728

SEQUENCE DESCRIPTION:

GATCCACCCT CCTCGGCCTC CCAAAGTGCT GAGGATTACA GGCATGAGCC ACCACAGCTG 60
 GCCCCCTTCT NTTTTATGNT TGGTTTTTNA GAAGGAATGA AGTNGGAACC AAATNAGGTA 120
 ATTTTGGGTA ATCTGTCTCT AAAATNTTAG CTAAGAACAA AGCTCTATGT AAAGTAATAA 180
 AGTATANTTN CCATATAAAT TTCAAAATTC AACTGGCTTT TATGCAAAGA AACAGGTTAG 240
 GGACATCTAG GTTCCAATTC ATTCACATTC TTTGGTCCN GGTAAGATCN GGNGGNNTAT 300
 ANCAATTCT ANTTGGGGTT TNCN 324

SEQ ID NO:5665

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06730

SEQUENCE DESCRIPTION:

GATCCTTCCA CCTTGGCCTC CCAAAGCATT GGGATTACAG GCGAGAGCAC TTGGTTGGCT 60
 AAAATATTTA TATTTACCTG NCATNATTTG TTGATTTGGG GGCTAGGGAG TTCTTAAAC 120
 AACATAAAA AATCTTCTGT GGCTGCAAA 149

SEQ ID NO:5666

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06731

SEQUENCE DESCRIPTION:

5 GATCACAGTC TTGAGGTCCT CTAGCAGGGG TGAGGGAGAG CAGCGACTTC AGCTGAGTCC 60
CTGCCAGTGG TTAAGCAAAC AATGGTTTCA AAATTCAAGG TCCCAAAATG GCAGCATTTC 120
ATGTTCTGAC CTGTTTGTGT TATATAGTGG TGTTTTNNNN CCNCTTTGGA NCTCTTGNGT 180
TGTTAATAAA ATGAAATGAT TACTTTTNA TAAANTGAA AAANGTAAAA AANAAN 236

10

SEQ ID NO:5667

SEQUENCE LENGTH:101

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS06732

SEQUENCE DESCRIPTION:

GATCGCGCCA CTGCACTCCA ACCTGGGTGA CAGACTCTGT CTCCAGAACA AAACAAACAA 60
ACAAAAAGAT TTTATTAAAG ATATTTTGT AACTCAGTAA A 101

20

SEQ ID NO:5668

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25

CLONE:HUMGS06733

SEQUENCE DESCRIPTION:

30 GATCCATGGA CCATCTGGGT CATGGCGCCT GGTTTCAGAC AACCTGAATC AAATCTTAGG 60
GGTGGGGCTT TGGGATGTCA TTGTCAATA GGCACCTCAG GAGATTCTGA GCACACCNTT 120
GTTTGAGAAC CACTAAATN AGGAGTGGGA AAAAAAAAT AGGTGTTTGG TTAATTTAGA 180
GCTGAGCTGN GANGNTAATA TATTTTNTT GTCANTGCCA TTACCAGNTA TGCACTGNTT 240
CTTTTATACC TACANTTN 259

35

SEQ ID NO:5669

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06734

SEQUENCE DESCRIPTION:

40 GATCCTGAAG CTTACTATGC AGCCTACAAA CAGCCTTAGT AATTAACA TTTTATACCA 60
ATAAAATTTT CAAATATTGC TAACTAATGT AGCATTAACT AACGATTGGA AACTACATNN 120
ACAACTTCAA AGCTGTTTGA TACATAGAAA TCAATTACAG CTTTAATTGA AACTATAAC 180
CATTTTGATA ATGCAACANT AAAGCATCTT CAGCCAAA 218

45

SEQ ID NO:5670

SEQUENCE LENGTH:222

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50

CLONE:HUMGS06735

55

SEQUENCE DESCRIPTION:

5 GATCAGATTG AGGTTATGCA TTTTGGCAA GAAAACCACG GCAATGATAT GCCCGTCTCG 60
 GTGCATTNA TCAGGAGATA CTTGATGTCG ATGTGTCATA TTACTGGTGA TGTTAACCTT 120
 GGTTAAGGTT AGTAGCTTTC AGGTTTCTCC ATTGTAAAGT TGCTATTACT TCTTAATATA 180
 ATAGGCTAGG TTGTACTGCT ATAACAAATA TACCTTAGTA AA 222

SEQ ID NO:5671

SEQUENCE LENGTH:86

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06736

SEQUENCE DESCRIPTION:

15 GATCCTTGAA TGAAGAGGAA CCTCACCAT GGGGCTTACT GTTATAATGT TTCTTCATTT 60
 ACTGTTATTA AAAGATTAT GAGAAA 86

SEQ ID NO:5672

SEQUENCE LENGTH:391

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06737

SEQUENCE DESCRIPTION:

25 GATCAGAAGC TGCCAGGAAC AAGGAGAAGA CGCTCCCTT CCTCACCTTC CCACCCCCAC 60
 ATGGCTTCTC ANTCGGGGAA AAGATACAAC TTAACTTTAA ACCAAGTNTT AAGTTTGTAT 120
 TATNACATGG GATTAGATGC ACCAAAAACA ATTTCAAGTG ACTGTGGGGC ATTCTATTGC 180
 CTGAGAATGT TCAAGAGTCC TGATATGACC TGTGTNTT ATCCTAAACA GTGAAAAATT 240
 CATCCACCAA ATATATAGGA ATAGAGGGTG ACAGNAAGAT GCTTCTGAA AGGTATCCNA 300
 30 TATTGGGGG TTTGGGTTA CATATNCTN ATGTNGGNTT TTAANCTATA GCTCTTCANT 360
 TANNNTACT CNATCCATTN CTTGAAAGGA N 391

SEQ ID NO:5673

SEQUENCE LENGTH:210

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06739

SEQUENCE DESCRIPTION:

40 GATCCTNTGT ACATGAAATG AAAGGTGCAT CANCTTGGGG GCTGGGAAAC CTGCAGTATG 60
 GNTTACTINC GTCCTATCA CTGGTGTGGC TGTGGGCAAA CCACTTATTG CCTGACCTAC 120
 CTCACAGGGA TGTGTGAGG GTTTGATGAG AGAATGAATG TTAATAGGAA TTGGAAAAATT 180
 CAAAGCATT A ACACATGTA AACAGGTAAA 210

45 SEQ ID NO:5674

SEQUENCE LENGTH:223

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS06740

55

SEQUENCE DESCRIPTION:

5 GATCTCAAGA AAAAGCAGGA ATTAAATAAG ACAAGGNCA GATTAAATA CCTTTCCAG 60
 CAGGGGAAAC AGCAAACCTTA AAGGTTCTAA GGCACANGAG AGCATGGCAT ATATGACGAC 120
 CCAAAGAGT GGCCAGATAT CCAGACATCT AGAAGGTCTA GCTAAGTNCT TAGGAAGTAG 180
 TATAANCAGA NAAGANAAAN TTGTGGCCTC TTTTNNAAA ANN 223

SEQ ID NO:5675

SEQUENCE LENGTH:391

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06742

SEQUENCE DESCRIPTION:

15 GATCATGCAC TGTTGACCAC TGAGCAATCT GTGTNACACT AGAGTTCACA GGGCATTTTA 60
 AGTGTAGACG TGAGTCCTTA AACATATTTN GNTTCTCTC TCAGGTTTAA AATGTTTCAA 120
 ATGTAATTNT TGCTCATCAG TGCAGTTATC AATGCAATTT NATATTCCTT GAGGGGAGAA 180
 AGNGGGGTCT TATTGTACAT GTCCAAGGGG GGTGATAAGA GTATTANCTG TTTAATTAA 240
 TTGGANCAAN CCATTGTCTT AACGCAGCCA TGGTTTGANT TTGTATCTT NGGGCTGACC 300
 20 GGTGCATGTA AATACAGTAT GCNCTTTGGA TGTAATCCTT NGAAATGNCA GTGTTGNATG 360
 GTAGGTTATC CTTNNGTNAA CCGTNTCTC N 391

SEQ ID NO:5676

SEQUENCE LENGTH:271

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06743

SEQUENCE DESCRIPTION:

30 GATCCCTATA ACTCAAAATA ACTTGTTTGT AAAAGAAAAT TTGTTTACTT ACCCATTAGT 60
 AAGTTCCTGC ATATTCATTA TAAGATGGCA AATCAAACCTT TTCTAGGATG AAGACAGCTT 120
 ATNTTNAAGT TGTATAGTCT TAGTTGGTTT AGGGTCTCAA TTTTAATTAA TAAATNCTT 180
 GGTTTAAATT TGCTTGCTCT TTTGAATTCC NGTTTAAATA ATTNNTNAG NGNGCAAAGN 240
 35 GATGTTGAAG TTCAGATTAA NCTCTNCTGA N 271

SEQ ID NO:5677

SEQUENCE LENGTH:166

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06744

SEQUENCE DESCRIPTION:

45 GATCCTGGAA GTAATCCGGG CACACTTACA TTTGTTGTCA ACAAGAACAA TCCTTTCATC 60
 TTCTTGGGCT TTCACATGAA CAGCCTTAAT AAAAACC GCC AGGACTCCCC AGAAAAGCAA 120
 ATGGTTCCTC ATCTTGACTT CACTTCTTCT GAAAACTGG AGCAAA 166

SEQ ID NO:5678

SEQUENCE LENGTH:386

50 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS06745

SEQUENCE DESCRIPTION:

5 GATCACAAAT TAATGTTGGG GAAAAATAAG ATTTAATATT TCTTTAAATA GAAAAAGAAT 60
 TTGGTTTTCC TCGTTTAAGA GCAATGAGAA AATNATGGAA TGTTGACTGT NTTGGGCACA 120
 CAGGACACGN ACCTTCATGG AAGTCCTTGC TCTGCGTGGC ATCTGTCAGC TTTNCACCTT 180
 TCATTCTTAT TCTTCACTTT TGCTGCTGAG CCTAGCTGTA CAAACTTNGC ACTTTCATTT 240
 10 GCTAATATAA ATTCAGTTTT ATTNTACCAT TTTAGAGACT ACTAATGGTT AANTGTAGAA 300
 GGNGNGGGGT GNACATGTTT TTATGTNGNG TGTTNAAAG GATATGTTTT NTNACCCCNT 360
 GTNATGGTGG CAGCTTTNTN TTTTNN 386

SEQ ID NO:5679

15 SEQUENCE LENGTH:260

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06746

SEQUENCE DESCRIPTION:

20 GATCCAGGAA GCGGCTGGAG ACATTCCTGA GCCTCCTGGT CCAAAACCTG GCACCTGCAG 60
 AGACGCATAC CTAGAGGAAC TCTAACCCCG GTGTACCTGT ATAAACTGAA CTGTGAAACT 120
 GTTTCGGTTA TCTCTGTCTT TTGAGGATGG CTTTGTCTG TTGCTGGTTA ACATTCACCT 180
 TCCTCTTTTG AGGAGTATTT TTCCATTATG TATTCATAAT AATGTTAATT TCAATAAATG 240
 25 ACATTCATGC AGCAATTAAT 260

SEQ ID NO:5680

SEQUENCE LENGTH:183

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS06747

SEQUENCE DESCRIPTION:

35 GATCAACATT CCAGGGTTGG TAATGTTGGA TGATGAAACA TTCATTTTIA CCTTGTGGAT 60
 GCTAGTGCTG TAGAGTTCAC TGTTGTACAC AGTCTGTTTT CTATTTGTGA AGAAAAAGNTA 120
 CAGCATCATT GCATAATTCT TGATGGTAAT AAATTTGAAT AATCAGATTT CTTACAAACC 180
 AAA 183

SEQ ID NO:5681

40 SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06749

SEQUENCE DESCRIPTION:

45 GATCTCACTA TAGAGGCATC ACTAATTGGG GAAAGACAGA CTAGGTAATA GTCAGATGTN 60
 ATATAGTAGT TTTAANCTAT AGGATGGCAG GTNCATGANT NTTGGTTGTA TTATCCTTTA 120
 TNTN 124

50 SEQ ID NO:5682

55

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06750

SEQUENCE DESCRIPTION:

GATCTGAAGT TGCAGGTAA GCTTGTNTGG TCAACATTCC AGTGTGGAAA AATAATTTAA 60
ACAATCTTAT TCTCTTAATT CTTTGGGCAA CAAAACTAT TAGTAATAGC TATTTGGGAC 120
CAGACAAAAT CAGCTTTCAT CTATAATTCA TTGGGGATAA TGGGAGATT AGATAATGTA 180
TCCNGATTTA AACCTACCAG TTTGTCCTAC CCCTTANGCG TTAAANATAA ANTATGCANC 240
AAATTTGGNG GNANGNNGTG TGNNGTTN 268

SEQ ID NO:5683

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06751

SEQUENCE DESCRIPTION:

GATCAATGCA AAAATTGTTA TATATGAACA TATAACTGGA GTCGTCAAAA AGCAAATTAA 60
GAAAGATTG GACGTTAGAA GTTGTCAATT AAAGCAGCCT TCTAATAAAG TTNTTTCAAA 120
GCTGAAA 127

SEQ ID NO:5684

SEQUENCE LENGTH:221

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06752

SEQUENCE DESCRIPTION:

GATCTTTACA ATTACAGTGT AGTAGACAAT TCGGAATTAA TTTGAAACAC ATCACAACAT 60
AACTTGAGAA AATTTCCTAN TGTATATGTA GTGGTAATAA ATGTTTAAAG GCTGCAAGGA 120
TTGCATTATA AANNCTGTTT GTNGGCTTTC TAAGTCITTN ATNCCTGTAT TGGGANTAAN 180
CAGATTTNAG AAAATGGATA TAAGCTGANA TGTATATTN N 221

SEQ ID NO:5685

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06753

SEQUENCE DESCRIPTION:

GATCATAAAT TTTTCTCAGT GTCCTTTTGG TGTGAACAC ATATATCTGA AACCTGTATT 60
TAACCAGATA TTTCTACTCA ACTGAATATA CAAGTGTAAG TTTGATTGGA AAATTGTATA 120
TTATAAATGA AAATACAATA ATCAAA 146

SEQ ID NO:5686

SEQUENCE LENGTH:344

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06754

SEQUENCE DESCRIPTION:

5 GATCCACCCA CCTCGACCTC CCAAAGTGCT GGGATTACAG ATGTAAGCCA CCGTGCCTGG 60
 CCAAAGTTTT CTAATACCTG TTTATAATCC CCTTCTTTGT CCTCAGGTAA CACTATCTAC 120
 TACGTGTCTC TNCAGATTAG CTTCGATTTT CTAGAATCTA ACTTATATAA TAAAAATAAT 180
 ATAGTATATA CCCTTCTTTT GGCTTTCTTT ATTCAGCTAT GTTGTGAGAT TCATTCATGT 240
 10 TGTITAGAGT ATCAGTTACT AAGTAGTATT CCATTTTNGG CTATATCAAA NNTNGTTTGN 300
 CCATTTACCT ATTAANGGGC ATTTNGCACT GGNTCCAGNN TGAN 344

SEQ ID NO:5687

SEQUENCE LENGTH:132

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06755

SEQUENCE DESCRIPTION:

20 GATCTCTGTT TTGACTAAAC TAGAGGAAAA ATNATTGGAT GTGTTTATTC TTTTCTAAGC 60
 AGAATGGTTT AACTTTGTAC TCTTTGAAAA ATAATGCTGA TTTATAAATC TCTGCCTATA 120
 NCAGAATGGA AA 132

SEQ ID NO:5688

25 SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06756

SEQUENCE DESCRIPTION:

30 GATCCTGCTG TGGCACGGGG CCTATGTGTC TCTGTGCGGT CTGCTGTGAA GACATGATGC 60
 TCTATTTATT GTAGAGAGTG ACTTTATTTG CTTTCTAGAA TTGTTTATAA CAGATGGTAT 120
 AAGAGAGGTA ATAAACAGAG AAAAATCTAT GCTTGTAAG AATACAAAAG TTAATTTTAC 180
 CTACTATAAT ATGGCTGGCT GAANCTTATT TCCTCTCTNN GNAATAAATG TTCTANTGGG 240
 35 CAAA 244

SEQ ID NO:5689

SEQUENCE LENGTH:143

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06757

SEQUENCE DESCRIPTION:

45 GATCTTNTCT ATACCATTTA ATGTAGAAAA ACTAATTTTC TATAATTNTN TCTATTAAAG 60
 GTGACATTAA TGCTGATAGA AAAATATTCC CACATATATC TNACTTGGAA AACTTATAAA 120
 AATTGTGCTG TCTTTAAAT AAA 143

SEQ ID NO:5690

SEQUENCE LENGTH:219

50 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS06758

SEQUENCE DESCRIPTION:

5 GATCGCAAAG GGATTGTTCT TATAAAAGTG GCATAAATAA ATGCATCATT TTTAGGAGTA 60
TAGACAGATA TATCTTATTG TGGGGAGGGG AAAGAAATCC ATCTGTCAT GAAGCACTTC 120
TGAAAATATA GGTGATTGCC TGAATGTCGA AGNTCTACTT TTGTCTATAA AACACTATAT 180
AAATGANTTT TAATAAATTT TTGCTTCAGC ACTTGGA 219

10 SEQ ID NO:5691

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15 CLONE:HUMGS06759

SEQUENCE DESCRIPTION:

20 GATCTAGATG AGATTACCCA TAGCAGGGAA AATAATTCAT CACCTACCAA AGACTGTACG 60
GAAAGGTGTG TTAATTTCAA AATTGCATTT TAGTTTGCAC ACATGTAAAT NATTATCCTA 120
TGTTAATCTA ATTGACAATT CANTTAGCTC CGCATCCTAA GACTTAAAC TAGCAATTCC 180
TATGCAAATC ATCTGCTTAA CTGANCTACA AACGTTTTTC ATTAATTCAT TCTTTGATGA 240
CATATCCAT GTTATATANT ANTNCANAAT AAAGTTAATA TACTACCCCA AA 292

25 SEQ ID NO:5692

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06760

SEQUENCE DESCRIPTION:

30 GATCCTCTCG CITGTTCACT GGGGCATGTA CAGTGGGCAC GGGAACTGG AATTCGTATG 60
ACGGAGCTTA TCTGAACAC ACTTACTGAA CAGCTTGAAG GCCTTTTGAG TTCTGCTGGA 120
CAGGAGCACT TTATCTGAAG ACAAATCAT TTAATCATCT TTGAGAGACA AAATGACCTC 180
TGCAAACAGA ATCTTGATA TTTCTTCTGA AGGATTATTT GCACAGACTT AAATACAGTT 240
35 AAATGTGTTA TTTGCTTTTA AAATTATAAA AAGCANAGAG AAGNCTTTGT ACACACTGTC 300
ACCAGGGTTA TTTGCATCCA AGGGAGCTTN 330

40 SEQ ID NO:5693

SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06762

SEQUENCE DESCRIPTION:

45 GATCANAGGT CTTGAGGTCT TTACATCTTG ACATATACAC TGAAAAAAN GGGGGTTGTA 60
TGTATNAATG TGCTACCCAA ACCTNTGGCC GCCACTTTTA AATTCTCAGA TTGCCCTGAA 120
TTTTGNCACT TTAAATAAT GNN 143

50 SEQ ID NO:5694

SEQUENCE LENGTH:273

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06763

SEQUENCE DESCRIPTION:

GATCTTAATG CTTCCTCGC TCTGTAAGCC TCTNAAGAGC AATATCTAAT TAATTATTAC 60
 TGTAATTTTT TAAAAGGCTT TAAAGTGCCT CAGGGGTCCC CTGAAACTAA TTTCCTATTT 120
 CTGGGATTCC CTGGATTGAT TATATGNNAT GGTGACATGA TTAGAGGAAT TCNTTTTAAG 180
 TATGAAANTT GTCCCTTTCC TNCCTCAGTA CTGCTCCTCT NGCTGGCATT GANTTAACAC 240
 AGGGACAAAA TTTGGTTAAT TNNTNATTNC NAN 273

SEQ ID NO:5695

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06764

SEQUENCE DESCRIPTION:

GATCTGTACT ACAGGAACCA AATGTCATGC GTCATACATG TGGGTATAAA GTACATAAAA 60
 TATATCTAAC TATTCATAAT GTGGGGTGGG TAATACTGTC TGTGAAATAA TGTAAGANGC 120
 TTTTACTTAA AAAAAATGC ATTACTTTCA CTTANCACTA GACACCAGGT CGAAAAATTT 180
 CAAGGTATATA GTACTTATTT CAGCANTTCT TAGAGATGCT AGCTAGTGTT GAAGCTAAAA 240
 NTAGCTTTAT TTATGCTGGG NTGGTGATTT NTTTATGNCA AAATTTTNT AGNGCGAANC 300
 ATGTGGTGGN TAGCTTGGNN ATGAANGAAT TNTGN CN 337

SEQ ID NO:5696

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06765

SEQUENCE DESCRIPTION:

GATCTAGAAG TTGCAACATT CGTTTGATAG GAATTCCAGA AAAGNAGAGT TATGAGAATA 60
 GGGCAGAGGA CATAATTAAA GAAATAATTG ATGAAANCTT TGCAGAACTA AAGAAAGGTT 120
 CAAGTCNCGA GATTGTCAGT GCTTGTGAG TACCTAGTAA AATNGNATGA AAAGAGGCTG 180
 GCTCCTAGGC ACATCTTGGT GAAATTTTGG AATTCCTAGT GATAAAGGGG AAATNATAAG 240
 GGCTNCTAGN GGGNGANGGG AATTNCNTGC CAGGGANCAG GNTCAGTTGN 290

SEQ ID NO:5697

SEQUENCE LENGTH:393

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06766

SEQUENCE DESCRIPTION:

GATCAATCCT GTATTAACT TTCATATGCC AAAAGGGTTT GTCCCGTTT ATCTGCCATC 60
 AGTGTGTTGAC CTGTTTAGGG CAGAGGCAAT AAGTCAGAAG TCTTGAAATT GAAATAGTTA 120
 TATGTGTGTC ATTGGACTGG ATTATAAACA GCTGTCTTGG ACTTCCCTC TCTTAACACT 180
 GACTGGTNAT CAGTATCATT AGTGAAAAAG NAAGCAAATT GTTTGTNATC ATCTCTTTAG 240

NCAGGTAAGC TGGAATGGGT GGGGCTTTAA ATAATANAAN CATGCGCATN GTTGGCTTGT 300
GTATGGGCTT NCTCTTGGGA TTCCTNGTNG TNATGGGCTT GGTATTTTGG GTNCTGTATT 360
TTGTCCANNG GCANTNCCAG GTGGGTGCCA NCN 393

SEQ ID NO:5698

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06767

SEQUENCE DESCRIPTION:

GATCCANGNT AAGAGGCNCC CCCCCGACCA GCAGAGGCTC ATCTTTGCAG GCAAGCAGCT 60
GGAAGATGGC CGCACTCTTT CTGACTACAA CATCCAGAAA GAGTCGACCC TCAACCTGGT 120
CCTGCGCCTA NGGGTTGCTG TAAATCTTCA ATCAATGCAA TNNCNATGCC CATNAN 176

SEQ ID NO:5699

SEQUENCE LENGTH:178

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06768

SEQUENCE DESCRIPTION:

GATCTACTCA GACAGGACCT TCGCACCTTT GCCAGAGTTT GAGCAGGAAG AGGATGATGG 60
TGAGGTAACT GAGGACTCTG ATGAAGACTT TATACAGCCC CGNAGAAAAC GCCTAAAGTC 120
AGATGAGAGA CCAGTACATA TAAAGTAAAA TNACATGGAT TTAAATCAAT TGTTTAAA 178

SEQ ID NO:5700

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06769

SEQUENCE DESCRIPTION:

GATCGTTTCT TTAGAAAAGT GGCATTGGCT TTTGAATATG AAATCTTCTC ATAGCTGCCT 60
AAAAAAGACT AGAATGTATA TGGATATCAG AAACCTTTAA TAATACATAA TTTATGCAAA 120
GATAAGATAA AGCAACATAA CACTAATTAT AAAACTATTT TTAATCCCC ATTTTAAATG 180
ATAANTATAC ATTTNTATTT AATTTCTTTT GANTAAAAA NTTGTAAAGT AAA 233

SEQ ID NO:5701

SEQUENCE LENGTH:374

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06770

SEQUENCE DESCRIPTION:

GATCTTCATC TGAATATGAC ATAAAAACAA CTTTATACCC AGAAAGTTAT TGATAAGTTC 60
ATACATTGTA CGAAGAGTAT TTTTGACAGA NTATGTTTCA AACTTTGGAA CAAGATGGTT 120
CTAGCATGGC ATATTTTCA CATATCTAGT ATGAAATTAT ATAAAGTNTTC TAAATTTTAT 180
ATCTNGTAGC TTTATCAAAG GGTGNNANTT ATTTNNTTCA TACATATTTT NGTAGCACTG 240

ACAGATTTC ATCCTNGTCA CTACCTTCAT GCATAGGTTT NGCAGTATAG TGGCGCCACT 300
GTTTTGAATC TNATAATTNA TACAGGTCAT ATTANTNTAT NGCCCTTAAA AAANATCAGT 360
TGTTCAGNG GAAN 374

SEQ ID NO:5702

SEQUENCE LENGTH:452

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06771

SEQUENCE DESCRIPTION:

GATCCTCCTG CCTCAGCCTC CTGAGTAGAC GGATTATAGG CACCTTGCCC AGCTTCTATA 60
GCAGCATTTT TTTCTAACAC CTAAAAAATG GAAACAAGCC AAATGCTCAT CCACTGGTAA 120
ATGGATAAAC AAAGTGTAGT CTTTCTATAC ACTGGAATAT TTGGCTATAA AANAGANTGA 180
NATATTGATA CATGCTACAA CATTGATGAN CTTCAAAAAC ATGCTAAGAG AAAGCCAGTC 240
ACAGAANAAT ACATNGTATT CTATAAGAAT GTCTAGGGAN CGTNAATCTA TATNGGCAGA 300
AGGTAGGTTN GTGGTTGCCT AGGGCCCGGG GGGAAAGGGT TAGGGGGCCT NGGGGGTGNC 360
AGCTTATGGG GCTGCTAATN GGGCCTNCCG NTTCTCTTN GGGGGTTGGT ACCCTGCTAA 420
ATTGNCCTNN TTGGCNTGGT TTTNNCCCGG GN 452

SEQ ID NO:5703

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06772

SEQUENCE DESCRIPTION:

GATCTGTCTG TGCACATGCC TCTGTAGAGA GCAGCATTCC CAGGGACCTT GGAAACAGTT 60
GACACTGTAA GGTGCTTGCT CCCCAAGACA CATCCTAAAA GGTGTTGTAA TGGTGAAAAC 120
GTCTTCCTTC TTTATTGCC CTTCTTATTT ATGTGAACAA CTGTTTGTCT TTTTTGTAT 180
CTTTTTTAAA CTGTAAAGTT CAATTGTGAA AATGAATATC ATGCAATAA ATTATGCAAT 240
TTTTTTTCA AAGTAAA 257

SEQ ID NO:5704

SEQUENCE LENGTH:77

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06773

SEQUENCE DESCRIPTION:

GATCANGAAG CTATTTTCNA TTCTGGGGAA CGATTATAAC TTAAATNATT GTTTTAATAA 60
AAATTCTAAG CTGGAAG 77

SEQ ID NO:5705

SEQUENCE LENGTH:278

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06774

SEQUENCE DESCRIPTION:

GATCCAATTT CTTTGTGGTA CCTGCAGTTT AAAAAATAAT TTGACTTCAG TGAGCATATT 60
 GGTATCTGGA TGTTCOAATT TAGAACTAAA CCATATTTNT TACAAAAAGA TATTAATCCC 120
 TCTACTCCCA GGTTCCCTTT ATATGTTAAG ATATAATGGC TTTGAGGGGG GAAAAAATAA 180
 ACCTAGGGGA GAGGGGAGTT TCCTGTAGTG CTGTTTCATT AGAGGATTC AGTAAATTA 240
 ATTCCACAGC TAATTGAATA AATAATGGNA CCTTTAAA 278

SEQ ID NO:5706

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06775

SEQUENCE DESCRIPTION:

GATCTGCATA TNATGTATTA GGTTAGGTCA CAAAGGTTTT ATCTGAGGTG ATTTAAATAA 60
 CTTCTGATT GGAGTGTGTA AGCTGACCNA TTTCTAATAA AATTTTAGTT GTACACTTTT 120
 AGTNGTCATA GTGAAGCAGG TCTAGAAAAT AAGCCTTTGG CAGGGAAAAA GGGCAATGTT 180
 GATTAANCTC AGTATTAANC CACATTANTC TGTATCCCAT TGTCTGGCTT TTGTAAATNC 240
 ATCCAGGNCA AGNCTAAGTA TGTGGTTAA TAGGNATCCT TTTTTTTTTT TTNAANGCCT 300
 AANNGGGN 308

SEQ ID NO:5707

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06776

SEQUENCE DESCRIPTION:

GATCGTAACC CTTTGTGAC TAATCTNGCC GTGGTTTTGT NTAGGTCTGC AGGAAGGAAG 60
 NCTNAAAAAG CGGACGAAGA TTTTNACTTA AGTGGGACTT TGTN 104

SEQ ID NO:5708

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06777

SEQUENCE DESCRIPTION:

GATCCTAGTA AGTCANTNGT AGTTTACTGG TGANGTGAGC ATTNTAGATT CCCCCNTTAT 60
 CACTAATCAC ACAACAATTT TAAGAAGTAG GCTATAAAAC AAAAAAAGGT TGCTGTTTTT 120
 TATTTTAAA TAAACNN 137

SEQ ID NO:5709

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06778

SEQUENCE DESCRIPTION:

GATCTCATTT GCTGGAATGA TTGATTAAAG AGTAAATA GCCACTGCGT NTGNTNGTG 60
TATAGTAACC GGTTTTNTTG CACTTGTCTG TGGTGAAAC ACTTACCTGC AGTGGAAAGC 120
CGTGCAAGGA GGAGGTAAAC ATTGGAGATG TTTGTNAAA TATTACTCTT GCTGTGAGGT 180
TTTAGTTTGT TTTGAATGAG AAAAGACTAA GTAACCTAAT CCATCTCAAT GTAGTGTTTT 240
AATANNNGG GNNCCTAATA TTTGANATGG GTCTCAGACA TGTCTACAAA TATGGGTACT 300
ATTTTNTGTC CCGTGTATTT TCACATTNA NAN 333

SEQ ID NO:5710
SEQUENCE LENGTH:126
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06780

SEQUENCE DESCRIPTION:
GATCCTTATA AATNAGAAAC ATGCAAGCTT CAGCTGCTCG AGTTCATAG TGTACCTAA 60
ATCGTATGTG TATGATACAT AAGGTTATGT ATTAATTGTA GCCCGGTGNN CNTCGNGGGN 120
ACCTTN 126

SEQ ID NO:5711
SEQUENCE LENGTH:133
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06781

SEQUENCE DESCRIPTION:
GATCCGGCAA ACAACCACC GCTGGTAGCG CGTTTGTNTT TGTTCGCAAG CTCAGCTGC 60
TCGANTCTA TANNGCCACC TAAATCGTAT GTGTATGATA CATAAGGTTA TGTATTAATT 120
GTAGNCGTTN GCN 133

SEQ ID NO:5712
SEQUENCE LENGTH:116
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06783

SEQUENCE DESCRIPTION:
GATCCTTTTA AATNAAAAAT AAAGTTTAA AAAAAACAT GCAAGCTTCA GCTGCTCGAG 60
TTCTATAGTG TCACCTAAAT CGTATGTGTA TGATACATAA GGTATGTAT NCNNNN 116

SEQ ID NO:5713
SEQUENCE LENGTH:268
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06784

SEQUENCE DESCRIPTION:
GATCTTCTCA ATGGGTGGNC TCCTGGTATT CGTGGGACCA CCTGTGGGCA CAGGAGCCAA 60
TGTGGTTCAG ACAGCTGGGC AGAGGGAGCT GCTAGTCAGC TGTTGCCCA CACTCTGCCT 120
GTCATGGTGA TTTGNACCCT ACCCCCCTGG TCCAGNGNC CTGGGGCTCA CTTGATACCG 180

TTGAAAGTAA GCACAGNCTG CATGTNCTCA GGNAGGNCCT GGGGCTCAGG GCACTCGAAG 240
NCATCAATGN TGGGNACANT GTTNTTGN 268

5 SEQ ID NO:5714
SEQUENCE LENGTH:129
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS06785
SEQUENCE DESCRIPTION:
GATCTCAGAA TACAAATTAA AATAAATTAA TTTAATTCTC AAAACACCCT TGATTGGAAC 60
TTACAGCTGG CCCTCTGTAT TCGTGGGTTC AACCAATCAC TAATTAATAA TATTGGAAC 120
AANNNNNNN 129

15 SEQ ID NO:5715
SEQUENCE LENGTH:214
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
20 CLONE:HUMGS06786
SEQUENCE DESCRIPTION:
GATCCTGCAT TTATGGTGTA GTTCTGAGTC CTGAGACTTT TCTGCGTGAT GGCTATGCCT 60
TGCACACAGG TGTTGGTGAT GGGGCTGTTG AGATGCCTGT TGAAGGTACA TCGTTTGCAA 120
25 ATGTCAGTTT CCTCTCCTGT CCGTGTTTGT TTAGTACTTT TATAATGAAA AGAAACAAGA 180
TTGTTTGGGA TTGGAAGTAA AGATTAAAAA CAAA 214

SEQ ID NO:5716
SEQUENCE LENGTH:253
30 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06787
SEQUENCE DESCRIPTION:
GATCTAATCC CTTCAAGGAA GTGATAACAC TGGAGTGGTA ACAAGAGGAG CAGGAAGCAA 60
35 GGCCAGCCCT GGTTCCTCAT CCCCATGTGT TTCAGGTGGA ACAGGAGGAA CTGGNCCAGG 120
CCAGGCCTCA TCCTCCTGGA CCCAGCAGGG GCAGAAGGAG GAAGGGACTG GTCCAGGCAT 180
GGGTCCCTTC CCNNTGCTCC ATGGGCANCT CTGCTGTATT GATATCACTA GTAAAGTCTG 240
TCTGCACTGC AAA 253

40 SEQ ID NO:5717
SEQUENCE LENGTH:332
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS06788
SEQUENCE DESCRIPTION:
GATCATGTCT TTCAGAATCC ATGTACATAT AGGCTGTNCT AGCCACAGTG GTAGATTTAT 60
GATTACATC CGAAAGTGTG CCTTAGTTAT CAATTAAACA TTTCTTAGT ATTCATATCC 120
50 CTTTCCTTAC CATATACCTC AGTGTATCCT TCCTGTGTCA AGCCTTATAA ATCATGTAAT 180

55

TTAGTGCCAC TCATGTAAAT CAGTAAATC ACAAAGGTCT ATTTAATGAA AACGATTAC 240
 CAATGTTGTT TTTTITTAAC AGGANAAGNA NTAGNAGCAC NTTGTCATTT TTNAGANGGN 300
 GGNNTTGTG GGNNTGGGG GGGNNGNTTG GN 332

SEQ ID NO:5718

SEQUENCE LENGTH:284

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06789

SEQUENCE DESCRIPTION:

GATCATGCCA CTGCACTCCA GCCTGGGCAA CCAGGTGAGA CCCTGCCTCA AAAATAATAC 60
 AATAAAAAGT AAAAGCAGCC CTGGGGAAAT GGAGACAGTG GACAAAGCAG GCTGGGGCAC 120
 CAGGTGTGCA TGTGGGTGTG AGTCTGTCAT GAGAGCTGTC CTGANTGCCC TTAACGCCAC 180
 TGAAGTGTAT GCTGGAAAAC AGTGACAACA GTGGATTTTG TTATATAGAC AATTANANN 240
 GTATANCACC CAGAAANANT GTGTGNNTGT TGGGNGTGG TGNN 284

SEQ ID NO:5719

SEQUENCE LENGTH:253

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06790

SEQUENCE DESCRIPTION:

GATCTTTAAC TCCTCCTGGC TGCACCTGGG TAGGGATGGT GGCATCGATG CCCCTCTGTC 60
 TGCTGAAGGA CCTGTTGCTG CTTCTGTCTT TTCACCCCTC CTTGGCTGAT GACCCAGAGC 120
 CCTCTGATGA TGGCATTCTC CTGGCAAGAG AAAAAGACTT AACTAGACTT CTGAACTTGA 180
 ACAGTTTCAG GTTATATTTT AATTTNNNT TTTTGTGAC NGGTNCNGAT NCTAATACAT 240
 TNCACCNNGC AAA 253

SEQ ID NO:5720

SEQUENCE LENGTH:389

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06791

SEQUENCE DESCRIPTION:

GATCCACCCA CCTCGGCCCC ACAAAGTGCT AGGATTACAG GTGTGAGCCA CCATGCCCGG 60
 CCCAGAATAC TTTTAAAG AAGAGCAGGT TAGAGGAAAG AAAAAATTG ATGCTGAATG 120
 TGGTGATGAA AGCATGTTTC TAAATGGGA AGCAGATGCT TAANGAGGAA AGACTAATCT 180
 GGGATTTTGC CCCATTTCTC TGGNTTTTCA CTCCTATATT TNATTCTCAC AATCGTGTG 240
 TCACATAGTG CANAANACAN ATTTCTTGTA AAGTCCCAG GGGTTTATGC TTGGGTGAAA 300
 GTTTTAGCCT GAGTATTTT CTTNCTCTAA AAANAGGTGG GGANTGNGNC ATTTGAGGNT 360
 NTTNACCTTT TAATTGTNCT GCTATNGGN 389

SEQ ID NO:5721

SEQUENCE LENGTH:174

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06792

SEQUENCE DESCRIPTION:

5 GATCTGGTTG GGGTTTGGG TTTTGTGTTG TTGTTGTTTA TTTGTTATTT TAAAGGTAAA 60
 TTGCACTTTT AAAAAAATAA TTGGTTGACT TAATATATTN NCTTTTTTNC TCACCTGCAC 120
 TTAGAGGAAA TTTGAACAAG TTGGAAAAAA ACANNNTTNG TTTCAATTCT ANGN 174

SEQ ID NO:5722

10 SEQUENCE LENGTH:367

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06794

15 SEQUENCE DESCRIPTION:

GATCCTATGT TGCTGGAAC TGCCAAACAG GATGTTGTGC TCAATNACCC CATGTGAGTG 60
 CGTGGACTCC TGGGAGCTCC TGCTCCNTAC AGTGGGCTGC AACTCCTGTA CTTGAAGCTG 120
 AGACCTCATA TGACGTGGCC TTCGTGTTGT CAGAGAGTGT CTGGAAGCTG CTGTTGCCAT 180
 CTTGAACAAC TCACCAACCT CCAACCCAGA GCCCCAGTGA GAGAGGAGCA TTTGGCCTCC 240
 20 TGCTTCCTTC TGTGGCCTCT GCCGGGCTCC ATTNCCAAGG AAAAGAGAGG AGCTTGGGCT 300
 CACAGAAAGA GAAGGGGATG AAACCCCAAG NGGCCCTATC TTTTGGGATT TACATGGGAT 360
 TTTTATN 367

SEQ ID NO:5723

25 SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06795

30 SEQUENCE DESCRIPTION:

GATCCTGAGT AATCCTTTTA GAGCCCGAAG AGTCAAAACC CTCAATGTTT CCTCCTGCTC 60
 TCCTGCCCCA TGTCAACAAA TTTCAGGCTA AGGATGCCCC AGACCCAGGG CTCTAACCTT 120
 GTATCGGGGC AGGCCCAGGG AGCAGGCAGC AGTGTTCCTC CCCTCAGAGT GACTTGGGGA 180
 GGGAGAAATA GGAGGAGACG TCCAGCTCTG TCCTCTCTNN NNNCTCCTNC CTTCAAGTGT 240
 35 CTGAGGAACA GGACTTTCTC CACATTGTTT TGTNTTGCAA CATTTTGCAT TAAAAGGAAA 300
 ATCCACTGAA A 311

SEQ ID NO:5724

40 SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06796

45 SEQUENCE DESCRIPTION:

GATCCTCCGG CCTCAGCTGG TCTACAGGCG GGTAATCAAG GGAAGTGGGAC TACAGGCGCG 60
 CCCTGCCGCG CCGGGACAAG TTTTGTATTT TTAGTAGAGA CAGACTCTCC CTGTGTTGCC 120
 CAGGCTGGTC TCCAACTCCT GGGCCTCCCA AAGTGTGGG ATTACAGGCG TGAGTCACCC 180
 CTGCAGGCCA CAGCTTTGCT TTTTAAAGC ATTTCTGCAT AACTAAAAAG ACAGGAAATT 240
 50 ACGAGCATAC GGNAACTGAT TTCTGCTTTC CTGAATTTTC TAAATGTATT TAATGGGCAT 300

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GGTTCTTTTG CAATGAAAAA GTAATANATT NGGGTNTCAT CN

342

SEQ ID NO:5725

SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06797

SEQUENCE DESCRIPTION:

GATCCGCCGA CCTCGGCCTC CCAAAGTGCT GGAATTACAG GCGTGAGCAC GTGCGCCTGG 60
 CCAAGAATGG ACATTTTITA AAAAAACATC AGTACTTCCT ACCACTGCTG CATGAGTATA 120
 ATGCTCCGGA ATTATCAGAA AGCATAATGC AGAAATACGA ATTAGTGGAA CTTAATCATG 180
 TGCCATATAA GCTTACCTAA CAAACAGTTA TATCCCTATT CCTCAACTGA ATGTCTTTTA 240
 ATAAATNAGA NTTTATCATT TNNGTANGG GTNGTGTGN GGNTGGNNGG GGGGGGGGNG 300
 GGGNNGGGGN GN 312

SEQ ID NO:5726

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06798

SEQUENCE DESCRIPTION:

GATCCTAGGC TCCCTCCATC CCTGGTATGT GGTCTCATT TTCATATAGA CCAAGAGCTA 60
 GAGCTCCAGT TACCATTCTT TAAAGTATAT TTTAATGCCA AATAGTGAAT AAAGGTGGCC 120
 AGAAAATTCA AA 132

SEQ ID NO:5727

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06800

SEQUENCE DESCRIPTION:

GATCANCTAA GGTCAAGAGT TNGAGACCAG CCTGACCAAC ATNGTGAAAC CCTGTCTTTA 60
 CTAAAAATAC AAAAATTAC CAGGCACCTA TAATNCCAGC TACTTCAAAG GCTGAAGCAG 120
 GAGAATCACT TGANN 135

SEQ ID NO:5728

SEQUENCE LENGTH:334

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06801

SEQUENCE DESCRIPTION:

GATCAGTGGG CCTCCAAGGA GGGNCTGTAA AATGGAGGCC ATTGTGTGAG CCTATCAGAG 60
 TTGCTGCAAA CCTGACCCCT GCTCAGTAAA GCACTTGCAA CCGTCTGTNA TGCTGTGACA 120
 CATGGCCCT CCCCCTGCCA GGAGCTTTGG ACCTAATCCA AGCNCTCTT TGCCAGAAAA 180
 GAAGATGGGG GAGGAGGCAG TAATAAAAAG ATTGANGTAT TTTGCTGGAA TANGTTCNGA 240

TTCNTCTGAA CTCAACTGA GGAATTCAC CTGTNANCCT GNGTCGTACA GANAGCTGCC 300
TGGTNTATCC AAAANGCTTT TTNTCCTCC TGTN 334

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SEQ ID NO:5729
SEQUENCE LENGTH:158
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06802

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SEQUENCE DESCRIPTION:
GATCCTGTAA GCAGACTTGG GCAGTCTCCT TTAGAAATAG GTTGCTGTGA CATGTTCTAN 60
GGTNTTGTAG ACACGTGTGA CTGTNTANGT GTATTGATGT GAATANTATT AAATATCCTA 120
ATTATNTAAT TCATTGTATT GTTCTGNGA AGTTGGGN 158

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SEQ ID NO:5730
SEQUENCE LENGTH:106
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06803

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SEQUENCE DESCRIPTION:
GATCCATANA AGAGCTCCTA AAGAAGAACC CACATGAAAA ACTATCAGAA TCATGTTTAA 60
GCTAAACCCA TATNCAAAGA CCAANCNACG NACCACCATT CTTCGN 106

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SEQ ID NO:5731
SEQUENCE LENGTH:105
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06804

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SEQUENCE DESCRIPTION:
GATCCTGGTG TGTGTATTAT ATAAAGAGAC CCCTCCCCTT ATTTGTGTT TTCCATCCCT 60
CTCCCTTAAC AGGATTGAAA TAAACATGC TTCTGTTTT GTAAA 105

35

SEQ ID NO:5732
SEQUENCE LENGTH:243
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS06805

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SEQUENCE DESCRIPTION:
GATCANCAAA ATCCAATTTC ACATGTGGCA CTAGGAAAA GGAATGCTAT AAAATTAATC 60
CCCATCACCC AAGTAGGGAT GCTGGTGCTT TTATACTGAG TCTTTACTGC CAATAAGTGA 120
TGCTGGCTGC AAAGGANCAG CTCTACAGAA AGTTTTTGGG TTAGTGTTTC CCTAGCTTAT 180
TNCTGCANTG GGGAAAGCCA GTTTCATACC AAAAANGANA ATGNAGGTGN TTATANTGGN 240
NNN 243

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SEQ ID NO:5733
SEQUENCE LENGTH:194

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06806

SEQUENCE DESCRIPTION:

GATCTCGGTC ACGTGTCCCG GCGGCTGAGG GGAAAGGAAG CGGGCATGAT TG TAGACAAT 60
 GAGGGGGTTC TCTTGATGTA ATGAAATGCA ATTTTATGGT TTGGTGCAA AACTCCTATT 120
 TTCCAGTAA TTAACTTTAT TTCTAAAGCA TATTTTGATT TGCCATCAAG AGCAATAAAG 180
 CATTAAATCT TAA 194

SEQ ID NO:5734

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06807

SEQUENCE DESCRIPTION:

GATCTGGGCC CTGAAGTATA TAAGTAGGAA TTTGCAAGAT GGATGAGGTA GAAAANNNGTA 60
 TTTTATATTG TGGATAAAC AGAGGGAAGA GCCATTTGTC TTATCCCCAA CTCCAGAACT 120
 CTACTACTCA TGGAGTCTGA CACAAACAAT GTTAATAATC TGTTTNGATT CTCATNATAG 180
 GGCACTGGAN TTGGCTGTAA ANTNCAAANC ACNTNN 216

SEQ ID NO:5735

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06808

SEQUENCE DESCRIPTION:

GATCTTCTAG TTNCTGTGTT GTTTAGACTC AAAGAATCAC AAATNTGTCA GTAACATGTA 60
 GTTGTTTAGT TATAATTCAG AGTGACAGA ATGGTAAAN TNCCAATCAG TCAAAGAGG 120
 TCAATGANTT ANN 133

SEQ ID NO:5736

SEQUENCE LENGTH:275

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06809

SEQUENCE DESCRIPTION:

GATCTTAGCA CCCAACTCTG CTGCCCTTNC TGCTGGGCAG TGCTNTCCT AAGAGGGGAC 60
 TCCCTAAAGG CCAGAGAGAG GGTGCTCATC TCCAGGACCT AGGCCACCTG TCAGCACAAA 120
 CAGAACTTAT TCCAGACATA AACATGAGTC TTCTTATTTC AAACACTGGA GCAACTGNTC 180
 AAATATCACT CTCCTACTTA CAGGNCTCAN CATACTNGTC ACAGCCCTTT ACTCCCNCTA 240
 CATATTTNCC ACANCACANT GGGGCTCANT NNCCN 275

SEQ ID NO:5737

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear
 CLONE:HUMGS06810
 SEQUENCE DESCRIPTION:
 5 GATCATGCTA GTNACTTCCT GCGCCAGGC ACCGTGCCAA ANACTGGATG CCCCCTACTC 60
 CTCAGGGGAC TGTCCAGGGC GCCCAGTGGT AGTGAGGGAG AGTGTCTCTG TTCTTTTGCT 120
 CAGCCTGCTG GCGCCTTTGT GTTTGAGGAT GCTTAATGAT TCCAGCCTCT CACTGTGCCT 180
 TATGCATTAA AATTNCTTTG TTACGAGCAA A 211

10 SEQ ID NO:5738
 SEQUENCE LENGTH:133
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 15 CLONE:HUMGS06811
 SEQUENCE DESCRIPTION:
 GATCTNCTTT ATAGCCANCT CTCCTCACTT AACAGGTACT TTCTCCAAA ACCTAAGAAC 60
 CAAAGTCTTC CGCTTGCAAC TTGGGATGGT GATATGGCTG TGCCCCACC CAAATCTCAT 120
 CTNCACCTGN NNN 133

20 SEQ ID NO:5739
 SEQUENCE LENGTH:169
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS06812
 SEQUENCE DESCRIPTION:
 GATCATCGCA AGGAAGNAGG CAGACAAGAG TAAGGCACAC CTGACTCTTA GGACTAGCAG 60
 TCAGAACCAG GAGGAAAGNT TTTATTGCTA TGCGGGTAGG TAAGAACAGA TTTTACTTAC 120
 ATCCATATAG TTACTTAAAG TCCAGTTTTC TGTTAAACNN NNTTCTNNN 169

30 SEQ ID NO:5740
 SEQUENCE LENGTH:127
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 35 CLONE:HUMGS06813
 SEQUENCE DESCRIPTION:
 GATCTCTTGT CCACTAAGTA TCTTGTTAAA TGCCAGTATC TCAGTCTTTC TGAAGCCCTG 60
 40 AAATGGTAAT TGTAGCATT CAGAAAAATNT CTTTCATTC AATCAATAA AAGCTTTTGT 120
 AAATAAA 127

45 SEQ ID NO:5741
 SEQUENCE LENGTH:179
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06815
 SEQUENCE DESCRIPTION:
 50 GATCTTCCAG ATTAGGCTAA ATGTAATGAA AACCTCTTAG GATTATCTGT GGAGCATCAG 60

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TTTGGGAAGA ATTATTGAAT TATCTTGCAA GAAAAAAGT ATGTCTCACT TTTTGTTAAT 120
 GTTGCTGCCT CATTGACCTG GGNAAAATGN AACAAACAN TAAGGCAANT GGTAGGAAA 179

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SEQ ID NO:5742
 SEQUENCE LENGTH:196
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS06816

SEQUENCE DESCRIPTION:

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GATCAGCCCT NCCCTTCAGC ATCCTCAGNT CCTGNAGCAG AGCCTGGAAG ACACCCTAAT 60
 GTGGCAGCTG TCTCAACCT CCAAAAGCCC TGAGTTTCAA GTATCCTTGN TAACACGGNC 120
 ATGACCACTT NCCCCGTGGG CCATGGCAAT TTNACACAA GCCTGAAAAG ATGTTGTNTC 180
 TTNTGTTTTT TTCTTN 196

SEQ ID NO:5743
 SEQUENCE LENGTH:326
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06817

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SEQUENCE DESCRIPTION:

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GATCCGCAGT CCTAACAGGG TGAGAAAGCA CAAGAGGGGC CAGCTCGGCT GAGGCCTGAG 60
 GAGAAATAAT GAGAAGTTTT GTTTCGTTCT TGGGCTGGGG CATCTCAGGA ACAGTGAGGG 120
 CAACAAGCTG TCCCTCAGGG ACCCTCACCT GCCCTCCCAT GTGACCAGGC CCTTCCCAGG 180
 TGGGGACTGG GGCTTGCTTT ATTAAGTGAG CTCTTGGGCT TTTGAAGTAG GACAGAGGGC 240
 CCTGGTTTGG CAGAGAGGAG GCAAGGGAGG GCTTTAGAAC ATCTGAGAAA TGTAAATAAA 300
 ATANTTCAGA AANTAGGAAA AAAATN 326

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SEQ ID NO:5744
 SEQUENCE LENGTH:105
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06818

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SEQUENCE DESCRIPTION:

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GATCTCGAAC CCTGTCTAGA AGGAATNTAT TTGTTGCTAA ATGTTCACTT TTTATAGTNA 60
 TGTCTGTAT TCTAAACAGT AAAGGGGNTT TATTNCTATC ACAA 105

SEQ ID NO:5745
 SEQUENCE LENGTH:167
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06819

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SEQUENCE DESCRIPTION:

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GATCTCAGAA GTTTTAAAA ATAGCAAAGA AGACTGNATT TGAAAANCAT GGTCTACAAT 60
 TGNTGTAA ATNCTGAAGC TATGAAGAAT AAATATTCA ACTTTGGATT ATGAAACCCC 120
 ATTTATGATT TTTAAATAC ACTTGAAATA AAAATGATTA AACTAAA 167

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SEQ ID NO:5746

SEQUENCE LENGTH:258

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06820

SEQUENCE DESCRIPTION:

GATCTNTAGA ATTNTTATTG TAATTTTCCT ACTTCTTTGA TAAAAGAAAA ATAAGTCAGA 60
 TTGTTAACTC CAAGATTGAA AAAAAAACT CTTGAAAGAN GATTATNAGT TGTAACNAAT 120
 TTGGGGGGTC TGGGCACAGA CATCTAACCT GGTATTGTAA GGCAGAGGCT CCCATTGGAN 180
 TGGTAGTGGT CCGGGTCAGT TGTTCATGGT GTAAGCTTTG CACNGTGTAT TGAACATTNG 240
 NAGGNTCTGN CTNGAAAN 258

SEQ ID NO:5747

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06821

SEQUENCE DESCRIPTION:

GATCCCTGCC CTNTCAAGA CTTTAGCTNT TCCTTCCATC CGGTGGCCTA TTCCAGGAAT 60
 TCCTCTTTTG CTTAAATCAG TTGGAGTTTG TNCCTGTTGC TTGTAATCAA GCCTTTATGG 120
 CTGCTGGGCT GAGTGACACA AGCACTTTAA TGGCCTGGAG GGACTTTTAA TCAGTGAAGA 180
 TGCAATCAGA CAAGTGTTT NGAAAGAGCA CCCTCGNGAA GGGTGGATGA CAGGGCAGGG 240
 CAGGAAGGNC AGGNAGATGG CAGAACGGTG GTGGCTGCAG CCGGGGGTNC AACCAGGANA 300
 CTGGTTGGCA AGCTNNGGGC TAGGGGGTAA GGNNTTTTNA GGGGTNGAAN 350

SEQ ID NO:5748

SEQUENCE LENGTH:331

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06823

SEQUENCE DESCRIPTION:

GATCTTCCAT GTTTGGACGT TTGCAGTCAC ACACAACACC TTAGTTCCTC TAGGGGCTGT 60
 ACAGTATTGT GGCATCAGAT AATGCCACCA AAGGAGACAT ATCACTGCTG CTGGGACTTG 120
 AACAAAGACA TTTATATGGG TTTATTTTCA TTCTGCCAAA GTAAANCANT ACATCAACAN 180
 GAGGAAACTC AGNTTTAACC TGTTATTTCT ATGANNTTGG GATGATTGCT TTGTTTATGC 240
 ACTTTTTCCT GNCTGTGCAT CCGCCTGTNA GTGTTTGGCC CTNTAGTCCC TCACTAGCCA 300
 TGCTTNTGTG NTGGGTTATC ANGGGNGTNN N 331

SEQ ID NO:5749

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06824

SEQUENCE DESCRIPTION:

GATCGAGGAT ATTTTAAAG AGGTTCAAGC TTGTGACTGT TAGTAGTGCA AGGATTGTGA 60
 TGGGCTCAGT GATTACAAAC AAAGACATGC AAANTACAAC TGTTAAACA TTTCAAGGT 120
 ATTTTAAAG GTTTGTATT GAAACANTGT TTATATTNC TGAGTCCTA AAAATGGTAG 180
 ANTACACATG ANANCTTTG TTTAGGAAAN GTTANCTTGT TAANTNCTNT TGATTN 236

SEQ ID NO:5750
 SEQUENCE LENGTH:60
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06825
 SEQUENCE DESCRIPTION:
 GATCCACCT TTGCTCCTGA CAACACTCAT TACACTAAAC ACCTCTTGA TTTGGTGAAA 60

SEQ ID NO:5751
 SEQUENCE LENGTH:129
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06826
 SEQUENCE DESCRIPTION:
 GATCACTGGA TGGATAGCTC AGCCTGGGGC ATTTAGTGTT TTCCTGGTG ATAAATCCC 60
 AAGGCAGCTG GATTGGAGC TGGTGGCAAG TTGAAATNAT TAAAAATTGA TTTGTGTGGG 120
 ACTGTCAAA 129

SEQ ID NO:5752
 SEQUENCE LENGTH:180
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06827
 SEQUENCE DESCRIPTION:
 GATCTTTGGA CTGAGAATGT TTGGTAACAT AGTCAAGCAT TTGTTAAGCC AAGTGTGGAA 60
 ATGTTCACTT TTAACTTTA CAGTTTTTTT AATGAGCAAT TCTACATTTC TAAGAAAAAA 120
 GATACTTCAT TTTATATAA GGTACAACCT GCTTATAAA NCTGTATTCA CAATGTCAAA 180

SEQ ID NO:5753
 SEQUENCE LENGTH:119
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06828
 SEQUENCE DESCRIPTION:
 GATCTGGCCT TTCTTAACA AAATCNGTGC AAAANATGCA GGTGGATGTC CCTAGGTCTG 60
 TTTCAAAGA ACTTTTCCA AGTNCCTGTT TTATTATTA AGTGTCTACC NNGTAAATN 119

SEQ ID NO:5754
 SEQUENCE LENGTH:67
 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06829

SEQUENCE DESCRIPTION:

5 GATCTCCATA AATNACTTAG TCTTCTATGT ATAGCTATCA AGGAAATAAA ACCAATTTTG 60
CCACAAA 67

SEQ ID NO:5755

SEQUENCE LENGTH:323

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06830

SEQUENCE DESCRIPTION:

15 GATCAGAACA AAAACACCAC TCTTTAATGG GTCTTTTCT TGGCTAGAAG TCTTTCCTCA 60
GTTTTGTGTTG ACTATCATAC GCTGATTTGT GGGTNATGGA AGGGGGCTAG AGATAACGTT 120
TCTCTGTACT TTGGTAAAGN ATGAAGGAGT CAGAGAGGGA ACAGAAAAAG TGAGAGAGTG 180
GCCTGCTGAA ATAATAGCCT GCCTCTAAAA GTTGTGACCA GAAAGTATGA TTCATTTGGG 240
20 CCCAGNGGGN GTAANNATG TTTTNCATN TACCTCCCAT AGNACANGGT GTTNGGAGGG 300
NNGGAGTGAG TGTNNTAGAN GGN 323

SEQ ID NO:5756

SEQUENCE LENGTH:274

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06831

SEQUENCE DESCRIPTION:

30 GATCAGGTGT CTATAACATT TTTAATTCTC TCTGGAAACA GACTCAGGT TCTTTGGACC 60
AAATCCAAAA GAACACATAG CTGTAACACA GCTGTAGTTG ACTAGAATGC TCTGTATACT 120
TTATATTAATA AANTGCTTTG CATTTCTNCC AGTGCAATGA ANTTTCATATG GTGTCCCACC 180
TTATTTAATG ATGGTACANT TTAATACTT AGTCAACTGC TGTNGAAAGT TTTCTCTATG 240
ANAGTNANGC TGTTTGAAGA ATTNANGNGN TTNN 274

35 SEQ ID NO:5757

SEQUENCE LENGTH:344

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS06832

SEQUENCE DESCRIPTION:

45 GATCCGCCCA CCTCGGCCTC CCAAAGTGCT GGGATTACAG GTGTGAGCCA CTGAGCCCAG 60
NCTGTATCCA TGTNTTCTGC ATGTTGATTC AACCAGCTAC ACATGGACAT TGTAGTTAGG 120
CCTATGATGA TTGTGTCTGT TCTGAAGATG TACATACCTT TTCTTCTATC ATTATCCCT 180
AAACANTAGA GTATAACAAC TATTTACACA GCATTTACAT TGTATTGGGT NTTNTANGTA 240
ATCTAAAGAT GGTTTAAAGN ATNCAAGAGG GTATGCATAG GNTATATGCG AATACCACCT 300
CATTTTANAT NGNTGACTTG NGCNTCGANN ATGAGGGGAT NTGN 344

50 SEQ ID NO:5758

55

SEQUENCE LENGTH:329

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06833

SEQUENCE DESCRIPTION:

GATCATGATA CAATTATTTT ATTAAGTCAT GGTTAATAAC AAATGAATCC AGACTTGTCT 60
 AACAGATTTT CCATCAACAA ATATTGTTAT GTGCAAAAGT ATTGCCTATG TTGTTTACA 120
 CACCACTGCA TTAAC TAGAA CTGCTGAGAG GACTGTATAT ATGATTTTAA ACCTAAGTTG 180
 ATTTTTTTC TCACTCTTGA AAGGAGTACT TCTTTGTGAA AGCAGTTCTT ACAGCTTTGT 240
 TTTCAACCAG CTA AAAATGT TTTGTATATN ACTCTAACCT GTTGTCTCC ACATTCTGTT 300
 GGTNCTGATT GNTGCTGNT NCTGGTTN 329

SEQ ID NO:5759

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06834

SEQUENCE DESCRIPTION:

GATCTATCCC TCGGCCTCC ACACCTGAAC TTGCCTAACT AACTGGCAGG GGAGACAGGA 60
 GCCTAGCGGA NCCAGCCTGG GAGCCAGAG GGTGGCAAGA ACAGTGGGCG TTGGGAGCCT 120
 AGCTNCTGCC ACATGGAGCC CCCTCTGNCG GTCGGGCAGC CAGCAGAGGG TNGTAGCCA 180
 AGNTGNTTGT NCTGGGGGCT GNCCNTGTGT ATTCACCACC AGGTAAATTA GACCATTNN 239

SEQ ID NO:5760

SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06835

SEQUENCE DESCRIPTION:

GATCAACTTT CCTTCTGTGT GTGGCTCAGN AGTTCTTCTG CAGAGATGGC GCTATCTTTC 60
 CTCCTCCTGT GATGCTCTGC TCCCAACCAT TTGTACTCTT CATTACAAAA GAAATAAAAA 120
 TATTAACGTT CACTATGCTG AAA 143

SEQ ID NO:5761

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06836

SEQUENCE DESCRIPTION:

GATCGCATCC CACAATGCGA GAATAATAAA ATAAAATTGG ATATTGAGA AA 52

SEQ ID NO:5762

SEQUENCE LENGTH:359

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06837

SEQUENCE DESCRIPTION:

5 GATCCTCCCG TNTCAGCCTC CTGAGTAGCT GGGATTACAG GCGCACACCA CCAATGCCCA 60
 GCTAGTTTTT GTNTTTTNA TAGAGACGGG GTCTCGCCAT GTCATTACAG TTGGTCTTGA 120
 ACTCCTGGGC TCAAGCAGTC TGCCTGCCTT GGNTTCCAG TGCTGGGATT ACAGGCGTGA 180
 GCACCGTGCC CGGCTAAAAA GTATTTTNA GTTCTGCATA TNGCTTATTT CACTTAACAC 240
 TATATTAGAG NTTGTTTAT ANCANTACAT ATAGATATGC TTATCCTTGN TTGACAGTNG 300
 10 CATAATTNTT CCANTAAAAA TTGGTTGTAT CNAGGGGCAN TTAACCCAGT TACTTAGNN 359

SEQ ID NO:5763

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS06838

SEQUENCE DESCRIPTION:

20 GATCATNAAG GACATTGCA ATCTGGAGGA CATCAGGAAG ACCTTACCAT CTGGCTGCTT 60
 CAACACCCCG TCCATTGAAA AGCCCTAGTC TCTTAGGGC TGGAAAGCAG CATCCCTCTG 120
 ACAGGGGGGC AGTTGTGAGG CCACAGAGTG CCTTGACACA AAGATTACAT TTTTCAGACC 180
 CCCACTCCTC TGCTGCTGTC CATCACTGTC CTTTTTNAAC CAGGAAAAGT CACAGAGTTT 240
 AAAGAGANGC AAATTAANCA TCCTGANTCG GGNACANAGG GTTTTATCTA ANANNNGGTN 300
 GNNNGTGN 308

25 SEQ ID NO:5764

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS06839

SEQUENCE DESCRIPTION:

35 GATCATAAAT ATTAATAATN AAAACTGAGA AACTATTAC AATGCATTCC TTATAAATAA 60
 ATGCTACATT TAGTAACTCA TTTCACCCAA A 91

40 SEQ ID NO:5765

SEQUENCE LENGTH:320

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS06840

SEQUENCE DESCRIPTION:

50 GATCAGCACA AGTAACAGAA AATNAGCCTG ACGGTGGCTT AAGCAATGGG AATGTTTATC 60
 TCACATAGCA AAAAGTCTGT AAATAGATGG TTCTAGAGTT GGGTGAAGC CAAAATGTCA 120
 TCAGGATTTC CTTGGAACCG TCTGCTTTGC CATCCTCAGT ATTGCAGAAT GGCTGCTCCT 180
 GCGCCAAGCA TCATTCTGCA AATNATGGTG TCCACAGCCA GAGTGGACAG TAGTACAGGN 240
 GCCTTCTCAT TCTGCCCTTA TCCGGGANTA ACCGTCAGCN GCTCCAGCAA CCTNCCCCCT 300
 GTCTNTTAT AGNGTGGGNN 320

55 SEQ ID NO:5766

SEQUENCE LENGTH:320

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06841

SEQUENCE DESCRIPTION:

GATCCCACTC TGATTGCATC CATTCTCTG AAAGACTTGT TTGTNCTGCT TCTCTTCATA 60
 TAACTGAGCT GGCCTTATCC TTGGCATCCC CCTAAACAAA CAAGAGGTGA CCACCTTATT 120
 GTGAGGTTCC ATCCAGCCAA GTTTATGTGG CCTATTGTCT CAGGACTCTC ATCACTCAGA 180
 AGNCTGCCTC TGATTACCC TACAGCTTCA GGCCAGCTG CCCCCAGTC TTTGGGTGGT 240
 GCTGTTCTTT TCTGGTGGAT TTAATGCTGA CTCACTGGTA CAAACAGCTG TTGANGCTCA 300
 GAGCTGGAGG TGAGCTTCNN 320

SEQ ID NO:5767

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06842

SEQUENCE DESCRIPTION:

GATCCAGTGA CAATNTGCCC CCTGCCAGCC TGNGTGTCGT CACTCATCAT TCATTCATCC 60
 ATNCTAGAGC CAGGTCTCTG CNTCCAGAC GCGGCGGGNG CAATGCTCCT N 111

SEQ ID NO:5768

SEQUENCE LENGTH:256

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06843

SEQUENCE DESCRIPTION:

GATCATTCTC TCTGAGGGCA GNTGNGGCGC AGGNAAATAG TCTTGNAAT GTTAAATATG 60
 ATGGGTAAAT TAAAAGTTTT ACAACATTCT ACCTAATATT TTNCTTTTAA CATACTTTTT 120
 CTGTTCTATT GTATTATGGT GTCCGAAAGC TAAATAACGN CTAGGNAAAA TTTTTTTAAA 180
 AAAAGNAAAA TCAGTTTAAT GTGGGNAGTA CTTAAGTGGT ATTATATTN NCATTTTCAC 240
 GTATAGTGCA TANAGN 256

SEQ ID NO:5769

SEQUENCE LENGTH:163

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06844

SEQUENCE DESCRIPTION:

GATCGTGTTT ACAGAGGACT TCTTTAAAGT GTCACATTTT TAAAATGTAA ACATATTTTT 60
 AATGCATACT TAAGTAATAT TTAAGAACT AAACAAAATA ATGATACANT TGCAGTGTG 120
 TGCTTGTTGT CAATGACAAA AATAAAACCA TTTTGGTGGT AAA 163

SEQ ID NO:5770

SEQUENCE LENGTH:253

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06845

SEQUENCE DESCRIPTION:

GATCTCCAAG AAGTGACTCT AGCAGAAGAT TTTATGGTGA TAAGCATNCC AATCANGAAA 60
 TGAAACCACT GTTCTGAGT GCACACTGAC ATGTCTGTGA ATATGTTACT GAACCTATAG 120
 TCCAGTTTTT TNATNTCTTG TTTTAGTCTG AAATNATTTG GGCCCTAATA ATCCTAAAAAN 180
 GAATGGAGCT GCATTGATGA ATTGGCTCAG TATTTAANGG GAGCAAACCT NTNGATAATA 240
 NNTCTTTTNA GGN 253

SEQ ID NO:5771

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06846

SEQUENCE DESCRIPTION:

GATCTGAAAT ACTGACAGNG TTCCCCAAAG TTAGATATTA ACACAGCTTT TNACNTCTCT 60
 TATGAGAACT TTAGTGTAAT TATACCTTTA TCATAGAAAT GAGATATCCA ATACCTNATG 120
 GNGACTACAA AAAGGNN 137

SEQ ID NO:5772

SEQUENCE LENGTH:371

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06848

SEQUENCE DESCRIPTION:

GATCCCAGAG TTCAGCCAGC CTGGGGTCCA GAACTCAAGA GTCCGCCTGC TTGGAGCTGG 60
 ACCCAGCGGC CCANAGTCTA GCCAGCTTGG CTCCAATAGG AGCTCAGTGG CCCTAAGNAG 120
 ATGGGCCTGG GGTGGGGGCT TATNAGTTGG TGCTAGAGCC AGGGCCATCT GGACTATGCT 180
 CCATCCCAAG GGCCAAGGGT CAGGGGCCGG GTCCACTCTT TCCCTAGGCT GAGCACCTCT 240
 AGGCCCTCTA GGTGGGGGAA GNAAACTGGA ACCCATGGCA ATAATAGGAG GGTGTCCAGG 300
 CTTGGGNCCC TNCCCTGGTN CTCCNAGTGT TTTGNTNGGG TAATAANTTG GANCTATGGG 360
 CTCTNAATTG N 371

SEQ ID NO:5773

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06850

SEQUENCE DESCRIPTION:

GATCGCACAC TACGCTCCAG CCTAGGTGAC AGAGTGAGAC TCCATCTCAA CAACAACAAC 60
 AACAAAAAC CACAAAAACT ATATTTTAA TCATGTTTGG TAGCTTGAAA ANTAAATNCT 120
 TTCTGCCTAA A 131

SEQ ID NO:5774

SEQUENCE LENGTH:254

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06851

SEQUENCE DESCRIPTION:

GATCTGGAAG ANCTGCTGAC AGAGTGGCCA GACACAATAC CACTGTCTTT GGCTCTGGGG 60
 NCAGTTGGCA TGCCAGGCCT GACTGCCTAC TTTGGCCTAC TTNAATCTG TGGTGTNAAG 120
 GGTGGAGAAA CAGTGATGGT TAATGCAGCA GCTGGAGCTG TGGGCTCAGT CGTGGGGCAG 180
 ATTGCAAAGC TCAAGGCTG CAAAGTTNTT GGNCGAGTAG GGTCTNNTGN AAAGGNTGCC 240
 TACCTTNAAG AGGN 254

SEQ ID NO:5775

SEQUENCE LENGTH:346

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06852

SEQUENCE DESCRIPTION:

GATCCTGGTG CTATGGTTTG AATGTCCCCA CCAAACTCA TGTTGAAATT GAATTGCCAT 60
 TGTTTAACAG TATAAGGGGT GACTGGGCCA TGTGAGCTCT GCTCTCATGA ATGGATTAAT 120
 GCCATTGTCA TGGAGTAGGT TAGTTTTCTC TGGCGTGGGC TCCTGGCAAAG AGGATGAGTT 180
 CTGCTGCCAT GCTGTCTGTN TCATGCACTT GCTCACCATG TGAGCCTTCT GCNTCACACA 240
 GGATGACCCT CACCAGATAC TTGCACCATG CTCTNGGGAC TTTCCCAAGT NTCCAGAGCN 300
 GTGAGCCAAA TNAAGTNGCT NTNCTTTATA AAANANAAAN ANAGTN 346

SEQ ID NO:5776

SEQUENCE LENGTH:336

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06854

SEQUENCE DESCRIPTION:

GATCCAGGGT GNCTAAAGAA TAGAAGTAGA GTTCCACCCA GGGCCAGAGG GAACAATCTG 60
 GGATTCAGAC ACAGCAGTGG TGCCAACGTG AATCTACCTC GTNCTAGAGT CTGAGTAGCC 120
 TAGTCTATCA CCCAACACAG ATAAGACTGG ACAGGGGCTC CCAGGAACCA ACATCTAAGN 180
 GGGGAGTTTG GAGAGGGGCT AAAAGAAAGC AGGTAAAGCC CCAANTGTAA CTGATTGATG 240
 ACCAGGGATA ACTATTTACT AGTGCTTTTN TGGNTTTATT GTAACCTCTGT NACTTTCCCA 300
 GTATTTGTNA ATTNTNNNC TTCTGNNTCT CCTGTN 336

SEQ ID NO:5777

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06855

SEQUENCE DESCRIPTION:

GATCTATTTA GGTGGAAATA GTTGTGGATG TACTAAGAGT AATGAAATAA AATTATAGCT 60
 TCAAA 65

SEQ ID NO:5778

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06856

SEQUENCE DESCRIPTION:

GATCTTNGA CGAACTGAGC CACGAGCGTG GCTTTAAGGG CCGTCCGAAC GCTGCAGGCC 60
GGCCAGGTCC CTGGGCGTCC AGGCCTGGCC TACGCACCAC TTTNTCCCTT AGCGTTTAAA 120
GGNNNNN 127

SEQ ID NO:5779

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06857

SEQUENCE DESCRIPTION:

GATCCTATGT GAAAAGAAAA GTGAAGCAAC TGAATCTTCA GCATGTNCTC ATCGGCGGAC 60
CTTCTTGTTGT AATGTAAACT GTGCCATGTT ATTAAAAAT GTGAACTAAG CTTCCAAA 118

SEQ ID NO:5780

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06858

SEQUENCE DESCRIPTION:

GATCTAGTAT AAACCTCACT TTACTCTTTT GGAATAAAGT GATTGGNTAG GACCCCATTTG 60
CCAGGAATAA GANTCAATAT GCTGCTGAGA AGGAACCCAT GGTGTTGANG ATGTTGAAAA 120
GACANACAG TCAGTAACGT GGAGAAATGG CCTGGNTTCA ANTCTGGCT CTGACACTTG 180
GTAGGTATGA GACCTTGGAG ANGTTTCTGN NCCTCTCCAT GCTTCATTTT TNTGANGGTT 240
TATTGTGTGG TTAAANTTN 259

SEQ ID NO:5781

SEQUENCE LENGTH:171

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06859

SEQUENCE DESCRIPTION:

GATCCTNAGC GGAGGTTAAG ATATTAAGTN ATTTCCATA TGAATCAGAA TTATATTGAT 60
TCTGTGCAAT CAAAACAAAA GGCAGANTAG AATGCTGAGA TTGGTTAAGT TTGCAATNAC 120
CATCTTGAAC CACAGATTTC TNCTATGTGT CATCAAAACA TCTAGTNNG N 171

SEQ ID NO:5782

SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06863

SEQUENCE DESCRIPTION:

5 GATCCTCAGA CCCTGCACAG CCCTGANTGG CTCACATCT NTTGGTCAGT GTCTTCATTC 60
TCCCCAGTCA GGGACCTNGG ATGTTTGTTA CTNCCAGAAG CCCTTNTCA CCCN 114

SEQ ID NO:5783

10 SEQUENCE LENGTH:55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06864

SEQUENCE DESCRIPTION:

15 GATCACACTG TGAAGATACA CAGAGTCAAT AAATGTGCAC TGTAATGGAC TTAAG 55

SEQ ID NO:5784

SEQUENCE LENGTH:298

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06865

SEQUENCE DESCRIPTION:

25 GATCCTGGAG AGCTCCCAGA CTTTGCTCAG CGTTCCTCANG AGGNAAGCTG GGAACCTGAC 60
CAAGGCTACA GCCCCAGACC AGAAAAGTAG CGGCGGCAGG GACAGCTGAC CAGACCACGG 120
GCAGGGCCTG CNTCCNTNTG CCCCTCAGCT CAGCCCCAGC AAGTGTGTGC TCAGAGCATC 180
TTTGTCTTC ACGGTAGCAG CTACCTTCCC TCACTGTCTC AGGTGCCGAG AGGGGCAGGT 240
GCCAGCCTNC ACTGGCATCA NTGACAAGNC CANGGCANGN NCCACCNGNG GGGTCCTN 298

30 SEQ ID NO:5785

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS06866

SEQUENCE DESCRIPTION:

GATCAATTGA TTGTTTAACA ATGGAATTTT GAGAAATATT TGGGTAGAAA AAAAAGTAGT 60
TTTAAAGAN GAGAATCCAA CCATTAAAC ATCAAAANNT GANATTNTT GTAAATN 117

40 SEQ ID NO:5786

SEQUENCE LENGTH:358

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS06869

SEQUENCE DESCRIPTION:

50 GATCAGCATG TGGACTGCAC TGTTTACTTT TGGTTGGACT GGGACAATTT GGGGAATATC 60
TACTATGTTT ATTCTCAAG AACCCATCAT CCCATTAGAT GGAGAAACCT GGAGTTATCT 120
CATTGCTATA TGTGCTGTC CTAATGCAGC ATTCTTAGGA GTTTATTATG CCTTGGNCAA 180
ATTCCATCCA GCTTTGGTTA GCACAGTACA ACATTTGGAG ATTGTGGTAG CTATGGTCTT 240

55

GCAGCTTCTN GTGCTGCACA TATTCCTAG CATCTATGAT GTTTTTGGAG GGGTAATCAT 300
TATGATTAGT GTTTTNTCC TTGCTGGCTA TAACTTTAC TGGAGGAATT TAAGAAGN 358

SEQ ID NO:5787

SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06870

SEQUENCE DESCRIPTION:

GATCTATGGG TAATTTTAAA TTTGCTGT CAAGCTTAAN AGGGACTTGA CAACAGCTAG 60
GATNGAAATN ATTTCAACAC TTAAATATGC TTACTTTGTG CCGGACGCTG TTCTAAGNCT 120
TTNACAAN 128

SEQ ID NO:5788

SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06871

SEQUENCE DESCRIPTION:

GATCCACCTA CCTTGGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCAC AGTGCCCGGC 60
CTGTATTTGG TGATATTTTA AAAAATTCTA CTTTGACCTT AAGTGCTTCA AGAATTGTGT 120
TCAGTAGTA GTCCTNTTGG TAAGACTAAC TTTCATATGC TATCTTTGCT CCATGAGCTA 180
TCATAGTGCT GTTTTCTTTC ATTACCCGTA AGAGTGGCTC TATCAGCA TTTACTGTTA 240
AGGGCTACAG TTAGACCTCT TGTAACTCT ACTTTNATTT GTGATGGCTG TGTTTCACAC 300
TACCTTGATT TATAAATGTA NGTAATGTNG TTAAATNGN 339

SEQ ID NO:5789

SEQUENCE LENGTH:343

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06872

SEQUENCE DESCRIPTION:

GATCCTNTGT ATAACATCGG GGCCTTGCTC AGGGGCTGTT GCGTGGTTGC CCTGCATTGC 60
CTCCGNCGCA CCGCCTTCCG TATCAAAACC TAAATAGAAG TTGTTGTTAC CGTGTGCCAA 120
TGTTGCCCAT GTGGGTTGTG CCAGGTAGAG AAACAGGAAG TCAATCATCT GTNACAGTCT 180
CTATTCTGTC GTTTGTCTCC TTGGTATTN ATTTGCACTA TATTNAGGTG AAGCCTGTTC 240
ACTGTTTAAA NCCGGAGTNT TCTTCAAANG GCATGNGAC CTGGTTCAG TAAATGTCCC 300
ANCACTGGGG GTTTTAGAAN GCATNNTTCA NTGACCNTNG NAN 343

SEQ ID NO:5790

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06873

SEQUENCE DESCRIPTION:

GATCATTATG TAGTTTCTGG ATTAAAAAAA TTTGTGTGTG AAGTTGCTTT GTAAAGTGCA 60
 TGTGGAATTA ATGGGACAGT GTGCCCTTTG TGTTAGATGT TAGAGCAAAA GAAAGGGCTT 120
 ATAGTGTTAG TATTGGAGCA CTTTGAAGAT AGATATTNC AGAAAAGATG TAGGATTTAA 180
 NAGTTAAATT TTAANTTTTA GAANANGATA TGATGGCAAT TGGNAATAGT CACAATGNNG 240
 TTCTTCATCC AGTNGGTGTT TAACCAGTGT TNATTTTGCC NCTGGTAATG TGGTNACCTG 300
 TGNGTGNTTT CCANTAGATG NGTTATGGGN 330

SEQ ID NO:5791
 SEQUENCE LENGTH:265
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06874

SEQUENCE DESCRIPTION:
 GATCACCACA AAGTCTGGCT CAGTGACTAT GGCTTTGCAA AACTAAACA TTCCTGTCTC 60
 AAGTCCTGTA GATGGCTTGA AATAGTATAC ATAAGCATGC CTTATAACA TCTTCAGTCT 120
 TTATCAACTC TTTGGAGATT CAGCCATTCT TTTTGTACT TTAGGGAATT AAATCANNNN 180
 ATAATGTATA AATCTGAGCA TGGCCGATGG CAGAAGANAT TTTGTCATAC GTTTTAAAG 240
 ANNTAAGANT GTATTATGTT TTTAAA 265

SEQ ID NO:5792
 SEQUENCE LENGTH:191
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06875

SEQUENCE DESCRIPTION:
 GATCAGAAAC CCTCATTAA TATAGATTAT TTTGGAATN AAAAAATTG TAACAAGGTG 60
 GCTTTCTTAC CCACCCTAAA ATGTAAATAA AACATGCAAG CTTGAGCTGC TCGAGTTCTA 120
 TAGTGTCACC TAAATCGTAT GTGTATGATA CATAAGGTTA TGTATGCCCT GTAGCCGTTN 180
 NNNNNNTNT N 191

SEQ ID NO:5793
 SEQUENCE LENGTH:204
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06876

SEQUENCE DESCRIPTION:
 GATCTTGTCT TTATCTACTT TCTTCAGTAA ACTCTGGAAG AAAAAACTT CCTGGAAGTT 60
 TGGGCAATCA TTTGCCATTA TTTNCCTTTC CTTGAATTTC TTGATATCAT GAATACTGCT 120
 GTAGTATGGG ACATTATGTA TTTNGGTAAG CAGACTTCTC TNCTGTATTT GTNTTTNGTT 180
 AACAGAAATG ACAAGTTCCT TAAA 204

SEQ ID NO:5794
 SEQUENCE LENGTH:237
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS06878

SEQUENCE DESCRIPTION:

5 GATCCCACCC CAGGCCTTGC CCCTGCCCTC CCACGAATGG TTAATATATA TGTAGATATA 60
 TATTNAGCA GTGACATTCC CAGAGAGCCC CAGAGCTCTC AAGCTCCTN NTGTCAGGNT 120
 GGGGGGTTC GCCTGTCCTG TCACCTCTNA GGTGCCTGCT GGCATNCTCT CCCNCATGCT 180
 TACTAATACA TNCCCTTCCC CATAGCCATC AAAACTGGAC CAACTGGNCN NTTCTN 237

SEQ ID NO:5795

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06879

15 SEQUENCE DESCRIPTION:

GATCAAAAGC CAAGCTCTGT CCCCGTCAGC ACGTCACCCT CCCTCACTGT AATCCCTGAC 60
 TGTTTTCTCT AAATGAAGAA TTATTAGAG AATATAANTT AGAAGGGCCG CCACGTCAGA 120
 TTTGCCTGAN TGGGAGCAGT CTTTCCAGCC TCGAAAAATG TTTAANCAAT ATGCAGATGA 180
 20 CCTAGCACAA ATAANGANTG CTAGCAACCG CAAA 214

SEQ ID NO:5796

SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS06880

SEQUENCE DESCRIPTION:

GATCAAGTGA TACTAGGAAT ATAGGTACAA GTAAGACTGT CATTNCATT GTTTTCTCTT 60
 30 TGGACTGATT CTTTNCATTA TAACAGCGTT GTGAAGTAGA GGTGGGATTA GGAACNTCT 120
 GCTGTAATCA ACTCCCTNGC TGCCCAAACA CCAGCCTNAT ACACAACACC ANCAGGTCCN 180
 GCNTNGN 187

SEQ ID NO:5797

35 SEQUENCE LENGTH:247

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06882

SEQUENCE DESCRIPTION:

40 GATCTTTNAG TGCTTTGGGG ATGGGGTGGG CTGGGGTGGG TGGATGGGCA ACAGTGACTT 60
 TAATTACCTT TGCTGCTCTG CATTNCCAG TTTATNCTTT TGTTTCTTTT ATCTGACTGA 120
 CTCTGTCAAA CAAGTGTCAA AGTTGTGTGT TAAAAAATGT TTAACAAAAA ANNTGTTGTA 180
 ATGACACAAA GCCTTATGAN ANTNTTATG GAGTTCAATA AAAGANGTAA GAGGTCAANC 240
 45 CNNAGGN 247

SEQ ID NO:5798

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

50 TOPOLOGY:linear

55

CLONE:HUMGS06883

SEQUENCE DESCRIPTION:

5 GATCTTCCCA ATATGAACAA ATATACTATG TATATNGTGT GTATTTCCTAG AAATCAATGG 60
CAGCTGCTGA TGGNGTTGTA ATTAGAANTC TATATAGNNT ATAGAN 106

SEQ ID NO:5799

SEQUENCE LENGTH:214

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06884

SEQUENCE DESCRIPTION:

15 GATCAGGACC TACGTTAAGG TGGATTTTNA ATTATTTAAA ATTCTGATTT TGTTTTATTT 60
TTAATTAATC TTTGGGGGAA GGATGGGAGG GGGGTGAGGG TTGAAGAAGT AAACATTGTA 120
CCTATTGGAT ACAATGTTA ATATTTGTGT GATGGGCACA CTGGAAGCCC AAACCTCACT 180
ATTACACAGT ACATTCATGT AACAAGCCTG CAAA 214

SEQ ID NO:5800

20 SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06885

25 SEQUENCE DESCRIPTION:

GATCCTTAAT GGTGGCCAGA GCTACCATGC AGTGCAAAAA TAAATTAAGT GAAAAATGTAT 60
TATTGAGATT AACAGTGCAA GGCCAATACA TTTTATAAAT CTGTCAGTAT CTTTTTAAA 119

SEQ ID NO:5801

30 SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06886

35 SEQUENCE DESCRIPTION:

GATCCTCAGT GAAGTGCATT CGGAATGAGG ATGGAAGTTG GTTAACACCA AATGAATTG 60
AAGTCGAAGG AAAAGGAAGG AACGCAAAGA ACTGGAAACG GAATATACGT TGTGAAGGAA 120
CGACCCTAGG AGAGCTGCTN AAGAGTGGAC TTTTGCTCTG TCCTCCAAGA NTAANTCTCA 180
AGAGAGAGTT AAATAGCAAG TGAATTTCTA CTACCTCTC AGTCACCATG TTGCAGACTT 240
40 TCCCTGTCTG GAGGCTCACC TTAGAGCTTC TGAAGTTTCC AAGCTCTGAG GTCAACCTNC 300
ACATTTTGGG CAATGGCATC TTCAAAAACA ATTAATTTN 339

SEQ ID NO:5802

45 SEQUENCE LENGTH:381

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06888

SEQUENCE DESCRIPTION:

50 GATCTCCAAG CGAACTCAGC CTCCTCCCAA GCTCCCTGTG GGTCTAGCC ACAAGCTCTC 60

55

CAACAATTAC TATTGCACTC GCGATGGCCG NCGGGAATCT GTGCCCCCTT GCATCATCAT 120
 GTCGTGCGAG AAGGCGCTGG TGTGAGGCAA GCCAGCAGAG AGCTCTGCTG TAGCTGCCAC 180
 TGAGAAGAAG GCGGTGACTC CAGCTCCTNC CATAAAGAGG TGGGAGCTGT CCTCGGACCA 240
 GCCTTACCTG TGACATTNCA CCNTNACGNC CACCCGNCTA CTTTGCCTN CTTTGGATTT 300
 NCITCAGGGN GAATNTTGAC CTAATTGTAT GACAATTAC GTAGGGGCTC AGGTATTCAC 360
 TTCTGAGGTN TTACTTTTGG N 381

SEQ ID NO:5803

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06889

SEQUENCE DESCRIPTION:

GATCTACACA TGTTCCTTG CATTGTGGT AATCTACACC AATGGAAACA TGTACTACAG 60
 CTATATTGA TTATGTATGG ATATATTGA AATAGTATAC ATTGTCTGA TGTTCCTTCT 120
 GTAATGTAAA TAACTATTT ATATCAGAAA 150

SEQ ID NO:5804

SEQUENCE LENGTH:276

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06890

SEQUENCE DESCRIPTION:

GATCCTAAGC AAAATCGGAG ACTTGAACAA AGTTTGTTTC TGGCTGNTG CCCTTCCATT 60
 TTCTGTTCTC TTCTTTCTCC CTGGAGATGA NAGAACACAG AATCANATTN CCAACCTCTC 120
 TCTCCNATGN ACTCTCTCAT CCCCCAGCCC AGCCACATTT ACACATAGGG CAGACACATC 180
 TCACACAAAG GAAGTACCCC TAAAGACCTC ACATAAATAA ACACTAGCAA ANTTCAAGTT 240
 GNNTCTTGGC AAANGTAGTN NTGGGTATGT NAGTCN 276

SEQ ID NO:5805

SEQUENCE LENGTH:219

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06891

SEQUENCE DESCRIPTION:

GATCANGTTC NGGGCTCTNT CAGCCGCCAC CTCTGGGAAA GAGAAAAGNT TTGGGTCCAC 60
 TGAACATCAT GTTTGTAGAC GCTGACAGGT GGGGTCCTAA TNAGAGCCAA CACATGCTCA 120
 CTGCCAGCNC CTGCCCTGAG TACTGGGAAG TTTCTCCTGG AAGCCCTTGT GAGATGGCTC 180
 NGNNGGCTGG TATCCCGACT TGGAAGATGA GAAACTNN 219

SEQ ID NO:5806

SEQUENCE LENGTH:191

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06893

SEQUENCE DESCRIPTION:

GATCAGTTTT NTGCTGAAGG CACCTACTCA GTATCTTTTC CTCTTTATCA CTCTGCATTG 60
 GTGAATTITAN TCCTCTCCTT TGTGTTCAAC TTTTGTNTGC TTTTAAATC AGCTTTATTC 120
 TAAGCAAATC TGTGTCTACT TTAATAAACT GGAAATGGAA AAAAAATTAA ATCTNNGCCA 180
 GGTCTTCAA A 191

SEQ ID NO:5807

SEQUENCE LENGTH:206

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06894

SEQUENCE DESCRIPTION:

GATCTGCAGC TTCGCGGGGA CAGAGATGTA ACCCAACTCG TTCACGGATG TNCCGCGCGC 60
 CGTGTACCCG GCTGCGGGCC AGGGGTACTC GGAAGGCGCG GGCAGGAGCC TNGCGAGGAT 120
 GCACCTTCCC CTGCNTTGA AAGGTAGAAC TGGGGAGTGC GGGAGGNTGA AGGTGGCCCG 180
 GAAAAGAACA CCTNTTCGCA ACCAAA 206

SEQ ID NO:5808

SEQUENCE LENGTH:55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06895

SEQUENCE DESCRIPTION:

GATCTAAATA TGTATTCAT AATNTTCCA TAATAAATA TATAAGGTGG CTAAT 55

SEQ ID NO:5809

SEQUENCE LENGTH:197

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06896

SEQUENCE DESCRIPTION:

GATCTGGTTT NATTCCTGTA ATTCAGCCAC CTGATTTGCT TGAGGGGGNG GNATANTATG 60
 TGGGTTTTTG TACAAACATG TTTCTCAGTG TGTGTTATT TTGAAAAAA TGAGGGGAGG 120
 GAGTTTTGCA AGAATGNGAG AAAATGANTG AAGAAGGCCT AATCNTCTCT CTTTTTCCAG 180
 TGGATTNAAT GGGNCCN 197

SEQ ID NO:5810

SEQUENCE LENGTH:344

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06897

SEQUENCE DESCRIPTION:

GATCCAATGA TTTAATTTT GGAAGAAAA ATCCAGTGAT TAAAGTCATG CAAGGAGATG 60
 GCCTGGGGCT TGCTAAAGT CAGGTTGCAG TTTCCATTGC ATCAAGAAA ATCAGAAAA 120
 TAAATACAAC TTTTAGAAGA AACTGAGTTT TCTCCATTG ATGTTTAGCT ATTGGGGGGT 180

CTCATACTTC TGGACTTGCT TAGACCTATG CTATCTAATA TGGTNGCCTC TGCCCATCCA 240
 TATGTGGCCA CTTGGGAACT TGGAAATGTN ACTAGTTTGG AATTAAGGTG TGCTNGTAAC 300
 TAAATNCAC CCTGNGGTNT CAAAGGCTNN AATAAANGNA NGGN 344

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SEQ ID NO:5811
 SEQUENCE LENGTH:111
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS06898
 SEQUENCE DESCRIPTION:
 GATCTATCTC CCTGTTAGGT GTNCTTTTTC TCCTCTTTAG AAAGNAGCCA AGGNAACCAG 60
 GGTTCCTCA AAGTGAAAA TACTGGAAGT NATGTACTGN TATCATAATG N 111

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SEQ ID NO:5812
 SEQUENCE LENGTH:169
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS06899
 SEQUENCE DESCRIPTION:
 GATCCATTGC TTTAGACAG GACTGGGTTT TGCTGTCCAA TGATATACAN TAATAGTNCT 60
 TCTTACAGCT AAGCTGGCCC CAGCCTTGTC TTGATATTAA TACATGAANT NTTTATAATT 120
 GTCTCATTGT CTCATTAGA AACATCCANA TTTNCTGCT GTGNCATN 169

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SEQ ID NO:5813
 SEQUENCE LENGTH:112
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

30

CLONE:HUMGS06900
 SEQUENCE DESCRIPTION:
 GATCAGTAAC TTTATCTCTA TCCTTAATGA ACATTTGTTT TATTGGTGGC TGGAAATATT 60
 TCTATTGTAT TTCTGTGTAT ATNNTNAATA AAATAATTTT TGGCCTCTNA AA 112

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SEQ ID NO:5814
 SEQUENCE LENGTH:271
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

40

CLONE:HUMGS06901
 SEQUENCE DESCRIPTION:
 GATCAGCAGC TCGGAAGACT CAGATGCCGA AAACCTCGTCC TCCCGAGAGC TGGATGACAG 60
 CAGCAGTGAG TCCAGTGACC TCCANCTGGA AGGCCCCANC ACCCTCAGGG TCCTTTGACG 120
 AGAACCTTGC TGACCCCAA GCAGNAGACA GACCTCTGGT TTNNTTTGAC CTCAAGATNG 180
 ACAATGAAAAG TGGGTTCTCC TGGGGCTACC NNNACCCNTT TCTAATTTAG TCTCTNGAGT 240
 CCCAAAAAGA AGTNCAGGCA GAGCCATCTN N 271

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SEQ ID NO:5815

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SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06902

SEQUENCE DESCRIPTION:

GATCATGAAA AGAAAAATNA ATGGCAGGAA AAAAGTTTGG TCCTTAATAT ACTTTGGCCT 60
 AGTNAATAA TGTGCCTTTT TGGTGTGTTT TGTTCATCAC TACAAGATAA AAAGGAAACA 120
 TTACANCTCA AGGCTTTAAA AAGTTCATTT ATTGAAATC ATATGTATAG CCTAGCATAC 180
 GAATGTGCAG TTTTAAACAC ATAGCTTCAA GCCATTTCTG NAAGCATNCA CCGGGNGCTC 240
 TGCTCAGNTA GAGTCAGNCT CCNNGCTCCA GNCCGACTGC GTGCGGGGGA CCAGCGGCCG 300
 CGTTNNATGG NGGGNCN 317

SEQ ID NO:5816

SEQUENCE LENGTH:294

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06903

SEQUENCE DESCRIPTION:

GATCTAGGAG AGGCGGCTCT GAACGAGTAC CTGCGGGTCA AGACAGTGAC CTTGATTAC 60
 TGAAGAAAGG TCTTNTGAG AAGAAAGTCC CTGCCCTCC CTCGTGGCTG GGGTCCCTC 120
 CCTCTTGAGC CTNGGTGCAC AGCANCTCCC ACCTGGGGGG CTAGTGAAG CCTCCTGCC 180
 TGCACACCAT GTCTGCATCT TGGACGNCCT CTGTCCAGTC AGAAGCAGCC CTTGGNTNNG 240
 GGTGAGNTGT GNCCCTTCCA GGGGGAATAA AGCTTCTGAA GAGAGACCGT CAAA 294

SEQ ID NO:5817

SEQUENCE LENGTH:263

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06904

SEQUENCE DESCRIPTION:

GATCAAAATC AATGGGAAGG TGCTGCCAAG GTGTCCTAAG CTTCTAGGAT AATATTNATN 60
 CTCTCAGGGT TTTGGAATG CTGCCCAAAG TCATAGTTCT CAGTCCTGGG TGTGAGTCAG 120
 ANTCACCTGT GGAGCCTGGC AAACCTTACA GACACCCTGG CTCCAGCCCT GGAGATTTN 180
 ATTTANTGGA AATATCACTT AGAATTCTAT TGTAAGCAAT AAAAGTNTAT TCTCACTAAA 240
 CTTTCAAAAA NTNGNGNTGN NNN 263

SEQ ID NO:5818

SEQUENCE LENGTH:199

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06906

SEQUENCE DESCRIPTION:

GATCTTTCCC NTTGGATGT GCGTGTGTGT CTGCNTGTGC CATGTGCGTG GCACGCATAT 60
 GAAGTGTGTG TGCCTGTGAA CGGCTTTGGG TCCTGCTGGT TTTNCTGTGA GCTNCAGTGT 120
 TCTGTGGGTC TGTGGTATCT NACACTGTGG NCATTAATGT ACTTCTTGA CATTTAATA 180

AATTTTNNAA CAGTTCAAA

199

SEQ ID NO:5819

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06909

SEQUENCE DESCRIPTION:

GATCANAAAA CCTAAANTCC ATAGGNACCC NAAATCCTCA CAGTTACAGA GACACCAAGA 60
 AGANTCTGGA CAAATAGGAC TTGCTAAGGC CTCCACAGTT TATN 104

SEQ ID NO:5820

SEQUENCE LENGTH:343

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06910

SEQUENCE DESCRIPTION:

GATCGAACGG ACTNTAAATC CGCTCTTTAT CGAAAGCTAA GCAAGCTGTG GCTTTTTTCC 60
 AACTCCGTGT AACGATTCTA AGTGTAGTGT NGTAGGACCC CGACGGGTNT GGCAGCAACT 120
 GCCCTGGAGC CCCAGCCCCT GCTTCCATCT NTNCTGTGCG CCCCACAGTA GACGTGCAGA 180
 CGTCCCTAAG AAGGTTCTTN AAGATGTTTA TTTTATATAG TCCTNTTTTA CTGGAAGACG 240
 TACGNATACT CCATCGATGT TGTATTGGN GGGGGGTGNG GAATCTTGT ACGCAGTTTT 300
 CNTTNGCTT TACGAAGCCG GTNAAANGAC CGTTTTGAAN TAN 343

SEQ ID NO:5821

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06911

SEQUENCE DESCRIPTION:

GATCACTTGA GCCCAGGAGT TCAAGACCAG CCTGGGCAAC ATGGCTAATN AACACTAAGC 60
 ATAGTTTTAA TGTCTTTNAT ATTAAGACT TTCTCAAATT CTAAA 106

SEQ ID NO:5822

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06912

SEQUENCE DESCRIPTION:

GATCCATTCC AGCCACTCGG GGCTGACAGC GGCACCCCGT TCCAAAGTAA AAAGGGGTTT 60
 GGGGACCCCGT TTAGTGAAA AGACCCATTT GTCCCCTCCT CTGCAGCTAA ACCTTCTAAG 120
 GCCTCTGCCT CGGGCTTTGC AGACTTCACC TCTGTAAGTT GAGTCCTCCG NCTCCGGGCC 180
 ACCCCACTCC CTTCCGCTTG CAGCTTCCCT GGGATTTTNG TNTCCTTTTA AAGGCAAACC 240
 TCCCAGCTTC TTTAGCCTCT TGGTACCTNA CACTCTCTGT CCNTCGCGTT ATTNATTCTA 300
 CACTGCCACT TCTGTAAGAA AAACAGTTTN TCAATAAAAA AAANAGNTGN 350

EP 0 679 716 A1

SEQ ID NO:5823

SEQUENCE LENGTH:163

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06913

SEQUENCE DESCRIPTION:

GATCTCGTCT CTAATAAAA TATACAAAAG AGTATTGGGA GGGGGTATGA AGAATGTATA 60
GGGCAATAAT TGAATCTGT TGAAGCTGGG TACACAAAAG TNCATTATGT TGTTTCTCTA 120
CATTATATC TATTNTNAGT NNITTNATAT CTATTTTNAN TTN 163

SEQ ID NO:5824

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06915

SEQUENCE DESCRIPTION:

GATCAGTGGT TTCCATTGTC AGGACTGGGC ATGGGGAAGT NTGGCTGTAC AAGAGGAGCC 60
CAAGGGAAGT CCTTGGTGGT GATGGAAGT CTCTGTATCT CAAATGTCTG TATCTTTAGA 120
AAGAANTCTA CATATGTNAT AACACTGCAT AGAAATATAT ACATGTACAC ACAAGTGAAA 180

SEQ ID NO:5825

SEQUENCE LENGTH:247

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06916

SEQUENCE DESCRIPTION:

GATCAGTGAA ATCTAGGGT GCTCTATGAG ATTGTACTAG GCCTATNAAG AGTGGTAAGC 60
CAAAATAGGTC TCCATGGGAG ATACATTATG TAAATAAATA AACAAATGGTT TGCTGGTTCC 120
TGTTGGTGTG TCCACAAGTA GGTAAACATG TTAAAGGAA CCCGGGTTCT TAGATTTTNT 180
NAGACTTTTT AANCTCAAGG CTGNGCATAA GTNCTTGAAN ATAAANTGCT AATNCTTAAG 240
TGTCAAA 247

SEQ ID NO:5826

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06917

SEQUENCE DESCRIPTION:

GATCAAGAAT TGCAAAAATG GAAAAAATTA ATGAAAAGGC ATCTGATAAA TGTGGACGGC 60
TCCAAATCAT GTCCTTAGAA AATCTTTCTA TTGAAAAGGA GACTAAATTG TAATGTGATT 120
CACAATGTAA CAATATAANN CTNNGTTTT NTATAATTNT NTAANAGTN 169

SEQ ID NO:5827

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06919

SEQUENCE DESCRIPTION:

GATCACCTCC GGGCACAGGA TCGAGGAAC TGTTGACATT CAGGGATGTG ACCATAGAAT 60
TCTNTCTGGA GGAGTGGGAG TTTCTNAACC CTGCTCAGCA GAGTTTGTAT AGGAAAGTNA 120
TGCTAGAGAA CTACAGAAAC CTGGTCTCTN TGGGTCTTAC TGTTTCTAAG CCAGAACTGA 180
TTAGCCGTCT GGAGCAAAGA CAGGAGCCCT GGAATGTGAA GAGACATGAG ACCATAGCCT 240
GGGCGACAGA GCGAGACTCC GTNTCAAA 268

SEQ ID NO:5828

SEQUENCE LENGTH:219

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06920

SEQUENCE DESCRIPTION:

GATCTGTGCC CAGAGACGGG ACTGGGAGGG CCCACTTCAG GGTTCCTCTC TCCCCCTCTAA 60
GGCCGAAGAA GGGTCCTTCC CTCTCCCCAA GACTTNGTGT CCTTCCCTC CACTCCTTCC 120
TGCCACCTGC TGCTGCTGCT GCTGCTAATC TTCANGGGCA CTNCTTGCTG NCTTTAAGTC 180
GCTGAGGGAA AAATAAATGA CAAATTGCTT GNGNCCAAA 219

SEQ ID NO:5829

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06922

SEQUENCE DESCRIPTION:

GATCATAAGT NCTTCTATCT GCTGAGCTTT ATTTATTNAT TTTGGACAGA AAGTTTGGTG 60
GGAAGGTTGC AATAAAATCA GAATCTCTCT TGTNTGAATT ATGCAGTTTA ACCCTGTCCA 120
TGGNNNGGCT GTACTCTATT CTNACTGTAT TTN 153

SEQ ID NO:5830

SEQUENCE LENGTH:172

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06923

SEQUENCE DESCRIPTION:

GATCTTGTTT TNATTAAATA TGCCAGTTTG TATTTNCCTG CCTTGGGATT TTTTGTGTG 60
CGCTGTACAG TATTCTAAGG GAAAAAGAAA AAGAAAGATG TGTAAGTAA CAGAGAGAGG 120
TGGCTATGGT GTAGAGACCT CTTTCTAATA AAGAAATGAA AATATGTCTA AA 172

SEQ ID NO:5831

SEQUENCE LENGTH:96

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06927

SEQUENCE DESCRIPTION:

5 GATCCCAGGG AAGACGTCTC TCTCNGCATC CCAAGCCATN CAGCCCTTAT CGCTGTACCC 60
 AGTAAACCCT CAATAAATAT CTTTNTCAGC CAGAAA 96

SEQ ID NO:5832

SEQUENCE LENGTH:228

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06928

SEQUENCE DESCRIPTION:

15 GATCACTGTA TTAATTTTGG TTTATCTTGG CATATATNGT TCAGTTTGTN TTTATTTTTA 60
 ATTTTNCCTT TTTTCCGAT TAGGCTTTGG TCAGCATTIT NCATTTAAAG AAAAGTAACA 120
 CTCCCATCCA CTCATAAGCT TGGTACAAAA ACTTCTCTGG CAGTTACTTT TGAAGCTTCA 180
 CTCTGCTTTC TGTATAAAGG GCAGTCTGTG GTCACGCAAG ACTTTAAA 228

SEQ ID NO:5833

20 SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06929

25 SEQUENCE DESCRIPTION:

GATCTTTCTG CTTTCGAAGG TATANTGTAT CTATTTCTGT CAGGAATNAT ATTTCCAAAT 60
 GAAATGTAA AGAACATTGG GAAATAATAA ACTTTCCTTT CAAAGTAAA 109

SEQ ID NO:5834

30 SEQUENCE LENGTH:160

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06930

35 SEQUENCE DESCRIPTION:

GATCTGTGTT TGGAAAGAAA AGAAGGAAAC TAAGACGTGC GAGGGNAAGA AAAAGGAAAA 60
 CCTAATTAAA AAATATGTAT CCTCTATAAT NAGTTATNAC AGCCATTGT AATGAATTG 120
 TCGCAAAGAC GTAATAAAAT TAACTGGTAG CACGGNCAAA 160

40 SEQ ID NO:5835

SEQUENCE LENGTH:77

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS06931

SEQUENCE DESCRIPTION:

GATCGACCGG CACCGCTGTT GCCTCGTAAG CCATAGCGCA TGGCGCTCT CAGAATAAAC 60
 AGGCCCTGCC TGGGAAA 77

50 SEQ ID NO:5836

55

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06932

SEQUENCE DESCRIPTION:

GATCANATAA CAGAATGCAC CAGTCATCAG CTATTCAGTT GGTAAGCTTC CAGGAAAAAG 60

GACAGGCAGA AAGAGTTTNA NACCTGAATA GCTCCCANAT TTCAGTCTTT TCCTGTTTTT 120

GTAACTTTG GGTAAA 137

SEQ ID NO:5837

SEQUENCE LENGTH:402

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06933

SEQUENCE DESCRIPTION:

GATCCAGCTT CATTCAACAT TACTACCAGT TATTTGATAA TNATAGAACC CAACTAGGCG 60

CAATTACAT TGACGCGTCA TGCCTTACGT GGGAAAGACA ACAGTTCCAG GGGAAAGCTG 120

CCATTGTGGA GAAAGTTGTCT AGCCTTCCGT TCCAGAAAAT TCAGCACAGC ATCACCAGCG 180

AGGACCATCA GCCCACTCCA GATAGCTGCA TCATCAGCAT GGTGTGGGC CAGCTTANGG 240

CGGNTGAAAG CCCCATCATG GGNNTNCGCC AGATGTTCTT ATTAAGAAGC ATCAACGATG 300

NTTGGGTTTG CACCAATGNC ATGGTTCAGG CTCGTCCTGC NCANNTTTGG CTGNCCTNCT 360

TTGCAGNTTG GGNACTNANG NTGTTTGCTT GCTGCCITTT GN 402

SEQ ID NO:5838

SEQUENCE LENGTH:261

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06934

SEQUENCE DESCRIPTION:

GATCTTCGTA ACGGCCTCGG CACGCTCCAC ACCCCTGGAG TCTCCCGAGG CCCCCATGTG 60

CTGCTGAGTG GCCAAGATGA TGCCAGGCTG CCCTATACAC TGGGGGATTC TGCCCTGGCC 120

CATGCACACC CGTCTTTCCA TGATGGCAGA GACATCCAGT NAGGACCTGA CCCGTCTCTG 180

TCTGAGGCCG GCTCAGCAGT GCAGCCTGGT CCCTGGGGGC TGGACCCAGG CTCCTAAATA 240

AACCAGCAAC TNCCTCGNAA A 261

SEQ ID NO:5839

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06935

SEQUENCE DESCRIPTION:

GATCTCGGCT CACTGCAACC TCTGCCTCCC GAGTCCTGGT TCAAACCTATT CTCCTGCCTC 60

ANTCTCCTGA GTAGCTGGGA CTACAGNNAC GAGCCACCAC ACCCTNCCCC CGNATCCCCT 120

GCCTCCATCC TAGTAAAGAC TCCTTGCTAT GCTGCAAA 158

SEQ ID NO:5840

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06936

SEQUENCE DESCRIPTION:

GATCAGTTTT GCCAAGGGGC CAGAATTATT CTTGTTAGA ATTGCTCCAG TTCAAGTCTG 60
CTGCTTTCCT ACAGTTTTTC AAATTTTATA ATGTATTAAC TACAATAAAC TCTGTTTAAA 120
AAATAAA 127

SEQ ID NO:5841

SEQUENCE LENGTH:232

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06937

SEQUENCE DESCRIPTION:

GATCAAAGAA AATTATCTC TTTTATAAA CTTAAGGACA GTTGCAAAAG GCTTCAAGGA 60
AATTATCTCA ACATTATTCT TTCTATGTCC TAACTAAATT CCTCAACTGT NATGANTTTT 120
CCANCTACTT CTTGAACAGT GGTCTATNCT GCTACATGAN GATGAATACA AACAANNTTN 180
TTGTATAACC TACTATNCCA GTNCTCCTGT GTCAGTCTTG CCTATGGATN TN 232

SEQ ID NO:5842

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06938

SEQUENCE DESCRIPTION:

GATCTCCAGN GCGCAGTGGG TTGGAGGAAG TACTACGTGA CAGCTGGGGG AGCCTAGCCC 60
TTGNTTGGGN ACTCACACAT CCACTCTAAC CCTTCTNACC ACAGGTCCGG CCGCCCCATT 120
AGCTTCATNG TGGTTTTTCAT CACCCCCAAC CCCCTGAGCA AGATTTCTTG GGTCAACAGG 180
TTACATTTGG CCANAATCGG ACTCCGTGAG TATAGCCCCA GGGAGAGTGC CTNAGGGGGC 240
AGNGGTGTGG AACGNGNAGG TTTNNGGTGA GTNNGGTAC AGAATGTNGN 290

SEQ ID NO:5843

SEQUENCE LENGTH:198

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06939

SEQUENCE DESCRIPTION:

GATCTTGTGA CATTCCTTCT CCTGGACAAT NAGTCTCAGG AGCTCCTCAC CAAGCACCTT 60
GTTACCCCCA CCCCTGCCCA CAAGAGAAAA CGCACGTTAA CTGTAATTN TCCACTACCT 120
ACCCAAATCC TATAAACTG CCCCACCCCA TCTCCTTTTG CTGACTCCAG GTGATTAAAN 180
AACTATTGCT CAGGGAAA 198

SEQ ID NO:5844

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06941

SEQUENCE DESCRIPTION:

GATCTTTTT CTAACACATA TTTGAACTGA ATAACAGACT TAAAGAAAGC CTTTGTTTAC 60
ATTGCTATTT ACTNTTGTGT TTGGGGGAAA ATACGAGGGA TTGATTTTAA ATAAAAACA 120
TTCCNTCTTT CATTNAATAT CAGTATCAAA AGAGGNGAC AAACATCTAT CTTTCTCATC 180
TNTATTNAAG TNCCTTTTGT TANTGTAGTA TCAANGTTT TTAGGTGNTG CAAGGTTTGA 240
CAANTCATTT GTGGN 255

SEQ ID NO:5845

SEQUENCE LENGTH:318

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06942

SEQUENCE DESCRIPTION:

GATCCCTCAG AAGACTTAAC TTGGCTGGAG TGGGAGGAAC TGAAAATACC ACTCCATGGT 60
ATACCCATAT ATCCAAATCG TAGAGAACGA GAAGCTATGA TTTATCATC TTATGCTGGA 120
ATCTTAATGA ACAGTATCCC GATTGAGGAA GTCTTTAAAA TTTATGGGGC TGATTCTNCT 180
GNCGATTCTG GTACCATCAA GTTCCCCGA GTTTCATCTN TCCGNCCTCTC CTTNCACCNC 240
TNTTGCCATG TTAGCAGNAN CNANAGCAGC AGCATACGGC CGCAAACNGG GTGTCNAGTC 300
AAGNANGGTT GCAGCAGN 318

SEQ ID NO:5846

SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06943

SEQUENCE DESCRIPTION:

GATCGGAGGT TGGGTTCTTG ATTAACTTC ACTGTGTGTT TTCTATNTCG GAAA 54

SEQ ID NO:5847

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06945

SEQUENCE DESCRIPTION:

GATCAGAGAN TTACCACCCC TGCTTNGAAG CAGTGTGTTGT GTATCCAC TAAAATAAAC 60
CAACTGGTAT AACATTCCCT GGAGCTTAAT AAGCACTCAA TAAATATTG TNGANTAAAN 120
ANAGAAAN 127

SEQ ID NO:5848

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06946

SEQUENCE DESCRIPTION:

5 GATCTGCAGA TTCCAAATGG GAATAAGCTC TATCATATTC TGAACAAGA ATTAGAATGN 60
 CTTGAGAACG GGCAAATAAC AAAGCAAACC AATATAATTA TATGGTCATT CTGACCCAG 120
 CTCTTATACA NNTTATACAT GTATTTTGT GTATGTTGT GAGAGTTGTA TGTATGTGAA 180
 TGNGTGTGAG TGTGTATTCA CATACACATA TN 212

10

SEQ ID NO:5849

SEQUENCE LENGTH:213

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS06947

SEQUENCE DESCRIPTION:

GATCATAAGG TGAAGTCCCA CAATAGGCCG TCTGCAAGCT GAGAAGCAGN GNAAGCCAGT 60
 CTGAGTCCCA AAACCCTAAC AGTAATCCTT TNCTAACGTC AGGNTGCGTA TCGACCTGTG 120
 TGTGCACATT TGCTGTGCAG AGTGTGCACT GCTGAGGAGA ATGGTGCCCA AGAAGGGCAC 180
 TGTITGNCCC AAANTNTTNC AANTAANCAT TGN 213

20

SEQ ID NO:5850

SEQUENCE LENGTH:65

25

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06948

SEQUENCE DESCRIPTION:

30 GATCATCTTG AATTACTGTG GGATGTANGT TTCAAAATTT TCAAATAAAG CCTTTGCAAG 60
 ATAAA 65

SEQ ID NO:5851

SEQUENCE LENGTH:55

35

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06949

SEQUENCE DESCRIPTION:

40 GATCACATAC TGCAGTCCAG CCTAGGCAAC GNGCAAGAC GTCATCTCAA GGAAA 55

SEQ ID NO:5852

SEQUENCE LENGTH:186

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45

CLONE:HUMGS06951

SEQUENCE DESCRIPTION:

50 GATCTCCCCA AATCCATTGN TNTCACCAGG CCTCCCAGA ACCTCCTCAG TTCCTTCACA 60
 GTGCAACCTT NTGTACTTGG CCCGCAACCC ANTAGTATTG TGCCTCACTT CACCTTCCAT 120
 GGGCAACTGC CCTCCCTTCT GGACATAAAA CCTNATATNT TAAATAAAGT TGAANTATGN 180

55

NAAGAN

186

SEQ ID NO:5853

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06952

SEQUENCE DESCRIPTION:

GATCAACTGA AAAAGCATG ACTTTTGAAG TCTCTGAATG CCTTGGTTCT NAGTATTATC 60
 ATNCTTNATT GAATTTATTT CTNATTAAAN TATGTAGTTT TN 102

SEQ ID NO:5854

SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06953

SEQUENCE DESCRIPTION:

GATCATGTGG AGTGAAAGGC AAATCTTACT GCTTAATGTA TAAACTCTCA CCACAGGAAG 60
 CATCGCTGTT TCCAATAAAT ATTGCTGAAG ACAGAAA 97

SEQ ID NO:5855

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06954

SEQUENCE DESCRIPTION:

GATCTGTCCA GTTTGTGTAT GAAATGGATT TGATAAAGTT TTTGCTAGTT ATTTACTACA 60
 TTTTGGGATT AATAAGTGAT TTANATGCAT ATNTTCCTGT AAATCTACAG TTTTGTGTAC 120
 AAGATATTCT ACAAGTNATG ANGCTAAGGG AAGAAAATGC CAAAGATACC TCTAGTTATG 180
 TTGANCACAG CCAGCACAGT TTCGACAGGT CAAGGAAGAG CTGTTTCAGT AAAGANTGAN 240
 GTGAAAACNC TTATTNNGA AANTGTTTCT CANTANTAAN CTGTATAGTT GTTCTCTNA 300
 NACCCCN 308

SEQ ID NO:5856

SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06955

SEQUENCE DESCRIPTION:

GATCCCAAGT GTTTAGAAAA CTAAGTAAAC TTTGTTGTCA AGCAATTTGT CCATGTGGAA 60
 AGAATTTAAA GAGAAGCTGA ACAATGGAAT AAACAAATAA AGCATGTTT TNATCTTTC 120
 CCATTAAA 128

SEQ ID NO:5857

SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06956

SEQUENCE DESCRIPTION:

GATCTTAAAA ACTGCAGTAT TCCCCCATTT TTAATGAGA GTGTGGGGCT GGCAGGGNTT 60
GGTTGGAGGG AGGAGAGAAG ACAGAGGAGC ACTTAAGGTG CAAAGCAGCC TATTTTCCT 120
TCAATAAAAA TTGTTAAGGG AAA 143

SEQ ID NO:5858

SEQUENCE LENGTH:235

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06957

SEQUENCE DESCRIPTION:

GATCCGTGGA AATAGCCTGG CTCCTCTTA CCCAGTAATG AGGGGCAGGG AAGGGAAGTG 60
GGAGGCAGCC GTTAGTCCT CCCTGCCCTG CCCACTGCCT GGATGGGGCG ATGCCACNNN 120
GTCATCCTTC ACCCAGCTCT GGCCTCTGGG TCCCACCACC NAGCCCCCG TGTNAGAACA 180
ATCTTTGCTC TGTACAATCG GGCTCTTTAC AATAAACCT TCCTGCTTNC ACAA 235

SEQ ID NO:5859

SEQUENCE LENGTH:258

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06959

SEQUENCE DESCRIPTION:

GATCCAGTAC TATCAGAATG ACATCCCCTA CTGAGGAGGG GACCTTCGAG GGCCTCTGCC 60
CCATGTGCCC TCAAAGCTGT CCCACAATCA TGGAGCCCTG CNACCTNCCT GCCCTGNCGN 120
CACATGCAGT NGAGGAGAGG CCTGTGGCCA AAGAACCTGG TAGCGGCTCC TNGGGCAGCA 180
CGTGGNTGGC GCACTTTGGT AACGCCATGG GANTGCAGCG NCCANTCGAA TGGGATNGGT 240
GCTGTTNTAT GCACAGGN 258

SEQ ID NO:5860

SEQUENCE LENGTH:309

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06960

SEQUENCE DESCRIPTION:

GATCAGATTA CCAGGAACAT AGGAGTGGAT TCCTGCCCCA ACCAAACCGC ATTCGTGTGG 60
ATTTTTTAT TCAACTTAAT TGGCTATTCC AAAGATTTTT TTTCCCTAT TTTTAACGAT 120
TGGAGCCCTT AAGATGCACG ATGGAATTGT GTTTTGCATT TTTNGGNAAG NGGGAGCAAA 180
GCGGGGNCCT GNGATAAAC GNTTGGAGCA ATCTCCTTNG GNAGGGATTT CAGCANGGGG 240
TTAGNTNGGT GAAACATTTT AAAGGGGGGA AAGGGGGGGG GTTTTTTTTT NAAANTGGGN 300
TAAATNCGN 309

SEQ ID NO:5861

SEQUENCE LENGTH:179

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06961

SEQUENCE DESCRIPTION:

GATCATGTGG ACCAGAGCAA ANNAAGTTC AGTTTGTGTC ACAATTCATT GCCAGACTTC 60
ATTGGAATGC TTTGTTGAT GATGTATGTN CATTCTCAGC TTTATTTTCA GATGCTTAAC 120
TGGGCAATGA AGTCTAACTT CAGGTTGAAC TNTCTCCNGN NTAANCTCAG GCTAAATGN 179

SEQ ID NO:5862

SEQUENCE LENGTH:341

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06963

SEQUENCE DESCRIPTION:

GATCGTGGTG GTGGGGACTG GAGACCGGAC CGAGAGGCTG CAGTCCCAGG TGCTTCAAGC 60
CATGAGGCAG CGGGGCATTG CTGTGGAAGT GCAGGACACG CCCAATGCCT GTGCCACCTT 120
CAACTTCCTG TGTATGAAG GCCGAGTAAC TGGAGCTGCT CTCATCCCTC CACCAGGAGG 180
GACTTCACTT ACATCTTTGG GCCAAGCTGC TCAATGAACC GNCAGGAACT GACCTGCTGA 240
CTGCACTCTG CCAGGCTTCC NAATTGCTTT CANTCTTATC TACCCTTTTG GGACTTATNT 300
NGGCTTATCA ACATAATAAT TTGATACAAC TNNTTCCCAA A 341

SEQ ID NO:5863

SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06964

SEQUENCE DESCRIPTION:

GATCTGGTGA AAATAGGATT ACATTGGAGC CAATTGAATA AATTTATTCT TTCAATCAAA 60

SEQ ID NO:5864

SEQUENCE LENGTH:359

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06965

SEQUENCE DESCRIPTION:

GATCTGGGAG GTGGAAGCCA GGCCAGAGGA CTTGGGGAAA ATAAGATGGA GGAAGGAAAA 60
AGGGAGAAGC TGAGCCACAG CTAACTCCT ACAGAGTGAA ATNAAAACGG GCTGAAAATA 120
CCACCCAGG AGAGGACCTC GCCCCAAGCA AGCCAGTGAG CAGCCCTGCC AGACTACTGC 180
CAGACTGAGA AACCAGAAAG CTGGTAGTCA TGTGGGCTTG CNTTCTNTGC CAAACGACTG 240
GGAAACCAAA ATNAGCCAC CTTGTGTTCT TCCTAGCTCC ACCCTCCCCG TGCTGCTGTG 300
TTCTGCTCCT TCCNCACGGT TTCCCTGCTA TAGTCCCAG CTGCTTGTA CCGGGCCNN 359

SEQ ID NO:5865

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06966

SEQUENCE DESCRIPTION:

GATCATGGCT AACGGGCACA GGCTTTCTTT TTTGGGTGAT GAAATATTC TAAATAACT 60
GTAAAAATAT TGCACAACTC TGTNAACATG TGAACCCCA CTGAACGTGA TGCTCTAACT 120
GTATGAATTG TATGGTATTT AAATTNACC TCAATAAAGC TGTATCAAA 170

SEQ ID NO:5866

SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06967

SEQUENCE DESCRIPTION:

GATCAGAGCA AGAGAACTTC CAGAGATAAT GGATAGAATG AAAGAATATA TATCTATATA 60
TATTTAACAT GTTGTITAGT AATCCCTATT TTAATTCAAT TCTCCATCTG TAAAAATATA 120
GCTAACTGAA TTATTTCTGT GTTCTACTCT GGGCTCTCAC ATTAATACTC TGTTCAAAAA 180
GTTTAAA 187

SEQ ID NO:5867

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06969

SEQUENCE DESCRIPTION:

GATCTGGAC TTCCAGCCT CCAAACTGT GAGAAATAAA CTCCTGTTGT TTGTAAG 57

SEQ ID NO:5868

SEQUENCE LENGTH:289

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06971

SEQUENCE DESCRIPTION:

GATCATGGTC AGCTCACACC CTAATAAGTC CACATCTTCT CAGTGTITTA GCTGTTTTTT 60
TCATTAGGNT TCCTTNTATT CTGTACCTTG CAGCCATGAC CAGTTCTGGC CAGGAGCTGG 120
AGGAGCAGGC AGTGNGTGGG AGCTCCTNTT AGGTAGANTT TAACATGACT TCTGCCCCAG 180
CTTNATCTGT CACACANGTN TGTGGCACCN CTAGTGCTAC TGCTAGGATA TCACTTACTC 240
AGTTAGATT TTCCNAAAAA NTAAGCTTTT AATTNATTC TTTGGTGTN 289

SEQ ID NO:5869

SEQUENCE LENGTH:346

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06972

SEQUENCE DESCRIPTION:

5 GATCTCCTCT TCCACCTCTT CCTGGTTCCT TTGCGGGGAA AATTGCACTA AAACAGAACC 60
 TTTTCTTAAT CCATGTTGGA AGGAAGCAAC AGTGAACCTT ACCTGTTCTG GAGTTCTCCT 120
 GGGTCTGCAG AAGGTTGGGA ATTTAGAAAA TAAGGCTGTT CTTTCATATT TTAATTTAAT 180
 CTCTGTCAAT GGCCATCCCT CCCACAAAA AACGTGGGTT AAGAGAACTT GCAGACTGGA 240
 TATGCAAGCA AACGGGCANC TCTGGAGAAA ANTANGGNAN GGAATGCTGA CTTTCTCTTT 300
 CTNTCTCTTT GTCCCCACAC CNNTTCCCAN CCCAATTACT GGGGTN 346

10 SEQ ID NO:5870
 SEQUENCE LENGTH:187
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06973
 15 SEQUENCE DESCRIPTION:
 GATCCCGACC CTCACCAGTC CCATTTGCCT CCCTCCAGCT CTGCTTAGGC ATTTTGCCCC 60
 TCACCCCAAT GTTCCACACC ATCGACAACC AAGGGGTGAG GTGGGGACAG GCCTCAGCAG 120
 GGAATGGGGC GTATATGTGA GTGTGCTGC AACAATAAAG CCTGTTGCAT CTCTCATGCC 180
 AGTGAAA 187

20 SEQ ID NO:5871
 SEQUENCE LENGTH:135
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS06975
 SEQUENCE DESCRIPTION:
 GATCTNGGAC TTCCAGAAAA CAGAACTGTG AAAAGNCAAG TTTCTGTNGT TTAACCACC 60
 CAATCTGAAG TATTNGTTA TGGCAGTCCT NGGCAGACTA ATACAATATG CAACACATT 120
 30 ACAATANATA TACAN 135

35 SEQ ID NO:5872
 SEQUENCE LENGTH:138
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06977
 SEQUENCE DESCRIPTION:
 40 GATCAAAATA TGATGTTAAA TTCTTAAATC ATATTTGCTA TGCAGCTGAA GATGATATTT 60
 TGATTGTAT TTTGGGGGTA CCTGTGTTGA GTTGATAAAC ATTTCCATCT TCATTAAAA 120
 TGCTTCCAAA CTAGTAAA 138

45 SEQ ID NO:5873
 SEQUENCE LENGTH:189
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06978
 SEQUENCE DESCRIPTION:
 50 GATCGGGGGG GCACAGTGGC TCGTGCCTGT AATCCAGCA CTTTGGGAGG CCTAAGCAGG 60

55

CTGGTCGCTT GANCCCAAGA GTTCGAGACC AGCCTGGGCA ATACAGCGAG ACCCCATCTC 120
 AATTATATT ATTTAAAAAN TAATTAATGT AAGAGNAATT AAAACAGATT TTTAAANNGG 180
 NNAAANNAN 189

SEQ ID NO:5874

SEQUENCE LENGTH:98

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06979

SEQUENCE DESCRIPTION:

GATCTGACTC TTCATTTNTA AGTTCCTTGT TACATCATGG TCATTTNCTA GTTTTTNACC 60
 AGACTCCCAT CTCACAATAA AATGCATCAA CAAGCAAA 98

SEQ ID NO:5875

SEQUENCE LENGTH:182

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06981

SEQUENCE DESCRIPTION:

GATCTGCCGG CTCGCCCCA GCCTGTGTNG AAAGAAGGCC CACGGGCACT AGGGGAGCCG 60
 AATTCTACAA TCCCGCTGGG GCGNCCGGGG CGGGAGAGAA AGCTGGT6CT GCAGTGGTGG 120
 CCCTNGGGGG CCATTCGATT CGCCTCAGTT GCTGCTGTAA TAAAAGTCTA CTTTTTGCTA 180
 AA 182

SEQ ID NO:5876

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06982

SEQUENCE DESCRIPTION:

GATCTTGTTC TNCCTCATCT GTAAAAGNAG GTTAACAAAG CTTTCTGCC CACTTCTTGG 60
 GGAGAAGGGA ATAACATAAT TGGTAAA 87

SEQ ID NO:5877

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06983

SEQUENCE DESCRIPTION:

GATCTTTGGC AGCGCATATG GCCTCTTTGG GGTATCGTC GCAATTNTTC AGACCTCCAG 60
 AGTGAAGATG GGTGACTAGA TGATATGTGT GGGTNGGGCC GNGCCTCACT TTTATNTATT 120
 GCTGGTTTTC CTGGGACAGC TGGAGCTGTG TCCTTTAGCC TTTAGAGGC TTNGTGTTC 180
 GGGCCCTCCC TGCACTCCCC TCTTGCTGCG TGTGATTG GAGGCACTGC AGTCCAGGNN 240
 NNGTCCTCAG TCGGGGAGC AGGCTGCTGC TGCTGACTCT GTGCAGCTGN GCACCTGTTN 300
 NCNNCANCTG CACCN 315

SEQ ID NO:5878

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06984

SEQUENCE DESCRIPTION:

GATCTNTTTT TTTTGGTAG TTCCTCAGCT ATTCAGGAAG GTGTATTNT GCCAGTAATT 60
 ATCCCTATGC TAATACTTTT TAAACATTA CTAGTGAGTG CCCTAAAACA TTAGTAGTGA 120
 GTGCCCTTTT NNTTACAGA AGAAATTGA TTGTTGTGAG CGATAATAAA ATTAACGTGG 180
 ANCTCTTAAA 190

SEQ ID NO:5879

SEQUENCE LENGTH:322

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06985

SEQUENCE DESCRIPTION:

GATCTCTATT ATNAGGCTAG ATGTATAGCC TCTACTCCCC CAGCTTCTTG CTCTTGACCC 60
 TGCACGTGTA GTTGCCCTTC TATTAGCAGC CAAGGAAAAG GGAAACATGA GCTTATCCAG 120
 AACGGTGGCA GAGTCTCCTT GGCAATCAAC CAACGTTGCT ATGAAATATG CCTCAGACTG 180
 TATAGCTCAT TATAGGACGT CAGGTTTNTT GAAAAAAGTG GGCAAGNCAT GATTAATGAA 240
 TCAGAATCCT GTTTCATTGG TGACTTGGGT GGGGGCTNTT TGAATTTTAA AAANTNNTNG 300
 TNAGNTGTAG NNNNGGTGNT NN 322

SEQ ID NO:5880

SEQUENCE LENGTH:247

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06986

SEQUENCE DESCRIPTION:

GATCATGGAA TACAAGATAA TTTCTCAGGA ATCAGATGGT CTTATTCCAC ACCTGCAGGA 60
 ATGTCAGCAT TGCAACCACC ATGGCAAATA TTGATTAAAT AANCAATTAC TATTTCCAGA 120
 TAAGTGTCAA ANTCTTAGAN GAAATTGTCA TATCTTAGAC AATTTAGANG TGATGGAGGG 180
 TGGATGATGA GAAATTATCG CACCACTGCA CTCCAGCCTG GCGGACAGAG CAAGACTCTG 240
 TCTCAA 247

SEQ ID NO:5881

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06987

SEQUENCE DESCRIPTION:

GATCCACAGT GTTGGGCACA ACTTTGACGT TTCTTAAAAA AAAAAATTAA A 51

SEQ ID NO:5882

SEQUENCE LENGTH:276

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06988

SEQUENCE DESCRIPTION:

GATCCTTGAT TGGTGAAAGG ATACACAAAA TCAGGCTGCT TCAGAGGAAG TCATCTGCTC 60
 ACAGGAATCA GGGTGAAGGC CAAGGACGGC ACTCAAGAAT TGNCTGTCT CTAACAAAAA 120
 AGCATCTGCA ACGAACTTCC TTAAATTTT GAGTTCAGTG TCTGTGATAA TTAAGAAATG 180
 GCANTACCAT GTATTNCCC CAGAAGTTAA GANATATTGC TGNACGGACC ANTAAGTA 240
 ATTCAGCTC CCTCAAGNAN NATGNGGTGN GGGNGN 276

SEQ ID NO:5883

SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06989

SEQUENCE DESCRIPTION:

GATCGCGCCA CTTCTCTCTA GCCCAGGCAA CAGAAAGAGG CCCCATCTCA GAAA 54

SEQ ID NO:5884

SEQUENCE LENGTH:72

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06990

SEQUENCE DESCRIPTION:

GATCCTTAAT TGCTACCACA TTTCAAACAA GAACTATGAC CAATTAAACT TTACTGTTGT 60
 TGAAGTCCCA AA 72

SEQ ID NO:5885

SEQUENCE LENGTH:267

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06991

SEQUENCE DESCRIPTION:

GATCCNTTGG GAATCCAGTT GAAGTTCCCA AATACTTTAT AAGAGTTTAT CAGACATCTC 60
 TAATTTGGCC ATGTCCAGTT TATACAGTTT AAAAAATATA GCAGATGCAA GATTATGGGG 120
 GAAATCCTAT ATTCAGAGTA CTCTATAAAT NTTNGTGTAT GTGTGTATGT GCGTGTGATT 180
 TACCAGAGAA CTACTNAAAA NAACCAACTG ATNTTTNAA TCCTANTGTG TAGGTTAAAG 240
 TGTGATGCCN TNNACCANTN CTAATGN 267

SEQ ID NO:5886

SEQUENCE LENGTH:164

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06992

SEQUENCE DESCRIPTION:

5 GATCATAAAA ATAGCAGNGC ATGTTNCCTG ATGATTTTAC AGTGCATATT GTCATGGCCA 60
 GGGCTTAGAG GTAGGGGAAA AACATGTGGA CAGCTTTGTG ACAAGAGTCT CTCTTATAGT 120
 GTTCTTTTCT AAAGTAACTT TTTCTGAGTA TGAATGTNNN NNNN 164

SEQ ID NO:5887

SEQUENCE LENGTH:341

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06993

SEQUENCE DESCRIPTION:

15 GATCCATGCA AATTGTCGCA TCCGACGGGT TAACTTCTCA GACAGACTCT ACTCAGANGA 60
 TGAGCTGCCG GCAGAGTTCA AACTGTATCT CCCAGTTCAG AACAAGGCAA AGCAATAACT 120
 GGAATTGTGA CTCGAGGGAT AGACCCCTGG ATGTGACTCT NCTTTTAAA AGGAAACTAT 180
 GTGGAGGACG ATGCAAAANC ATATTTATCT TAGTTTGCTC TGCTGTAGTT CTGTTATTTA 240
 TACTTGGTGT TGCTTGTGAT GGACACNGGT GAACATGCCG TAACTCTGTG ACTGCATTGT 300
 20 AAGTGCAGTG GGGGTAAGCA GTCCTGTGGC GTGGCGCATT N 341

SEQ ID NO:5888

SEQUENCE LENGTH:256

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06994

SEQUENCE DESCRIPTION:

30 GATCCTGGAC TGGGTACCTT ACATCAATGG CAAGTTTAAG AAGGNTAATT AATTACACAA 60
 ACCCTTCACA GACTGCTCTG GTGCCTGGTG GTGCTAGCTC CTCCCACCTC AGCACCTGCT 120
 GCATCTGGAG CAGCCCAAGC CTCAGGATGG NCAAGNGGAA ACCACAGCT CAGCTTCAGG 180
 CTTCTTATGT TTCTGAAAAC AGCTTGGNTA TTTAATGCA CGTTGCATTA AACCTCACTG 240
 AANCATAANG GGGAAA 256

35 SEQ ID NO:5889

SEQUENCE LENGTH:204

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS06995

SEQUENCE DESCRIPTION:

GATCTTTGTA GGAATATATG TGTCAGTAAT NATGAGCTTC AATCCTGACA TTAATAACTT 60
 ACTGTNGAGC AGAGAAGAGT TGCTTGTAAG CCTTGTGCTT TTATATACTA NITTTAAANC 120
 TTAAAGTGAT AGTGAGCTAT GAAGTACCAA TCATGTATGA TATGTGGATA CAAAGCACAG 180
 45 TATTATTAAA GTGTNATGTG GAAA 204

50 SEQ ID NO:5890

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS06996

SEQUENCE DESCRIPTION:

5 GATCAGCAAT AAAAAA AAC CTACAAAAA NCCTATATTC NTTAATTNTT GCTTTTACGG 60
 TGATATAGTG CATGCAAACC AGGAGCATTT TGTGTCTTAA GAAAAATAAT CTTAGAACAG 120
 ATGGCTGTGA AAATTACACC CATGCACAGN ACANGCCACA GGAATAATNG GNN 173

10 SEQ ID NO:5891

SEQUENCE LENGTH:156

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06997

15 SEQUENCE DESCRIPTION:

GATCAATAT TGGTTGAATG CCTATGTATG TCAGGCCCTG TGCTGAGCCA TGAGGATTAA 60
 AAAGATGAAT AANCATATCT TGTTAGGAA ATGGATGTAT AAAAAATCA AGTGCAATAA 120
 AGTGTGTGTC CAAAAGCTGA CACAATGGAA AGGAAA 156

20 SEQ ID NO:5892

SEQUENCE LENGTH:100

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06998

25 SEQUENCE DESCRIPTION:

GATCGCTTGA ACCTGGGAGG CAGAATTTGC AATNAGCTGA GATTGCACCN TTGCACTCCN 60
 GCCTGGGTGA CAGAGTGACA CTCTGTTTGA AACAAACAAA 100

30 SEQ ID NO:5893

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06999

35 SEQUENCE DESCRIPTION:

GATCACTTGA GCTCAGGAGT CCTAAACCAG CCTGGGCAAC ATAGTGATAC CTTGTCTCTA 60
 CCAAA 65

40 SEQ ID NO:5894

SEQUENCE LENGTH:94

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07000

45 SEQUENCE DESCRIPTION:

GATCTTGAAT AATCATAAT TCTTCCACAG TAGAAATAAA ATAATTNCTG GCTAGTTATT 60
 TTCTTAAAAA TAAAAAAAT TTGAAAACCT CAAA 94

50 SEQ ID NO:5895

55

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07001

SEQUENCE DESCRIPTION:

GATCCCTCTT TTCCAGAAAA TTCTGTGGAA TTTTCTGTA GGACTTTGTT CTCCACAAGC 60

TTGAATTAAA GCAGGATTCA GTTTGCAAA 89

SEQ ID NO:5896

SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07002

SEQUENCE DESCRIPTION:

GATCAGCTGA AGTGTGTTTT AGACCCAAAC CATCTGGCCC CTTGTTTTG CTCAGAGGAA 60

GTAATNTNC ACTTAAATGA AATTGAAAAC GCCATGTGGC ACCACAAAAG AGCTCTCTGT 120

ACTTNCCCCA TGCTGCCCTCA AAAGTNCCTGT AAGTTTCGGG GTCAGTGTCC CACCCCTCAC 180

TTCCCGANNN NNGGGN 196

SEQ ID NO:5897

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07003

SEQUENCE DESCRIPTION:

GATCCCAGTT TGCCTTGCCA AATAAACTCT GTTTATGTGA ATTTATTAAA CGCAAA 56

SEQ ID NO:5898

SEQUENCE LENGTH:294

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07004

SEQUENCE DESCRIPTION:

GATCCCAGCT TTTTCCCTC TCCCACAAAA CCAGGTAGTG AAGTTATATT ACCAGTTACA 60

GCAAAATACT TTGTGTTTCA CAAGCAACAA TAAATGTAGA TTCTTTATAC TGAAGCTATT 120

GACTTGTAGT GTGTTGGTGA AATGCATGCA GAAAAATNCT GTTACCATAA AGANCGGTAA 180

ACCACATTAC AATCAAGCCA AAAGAATAAA GGTTTCGCTT TTNTNTTGT ATTNATTGT 240

TGTCCTTGT TCTATCTNNG ANATGCCATT TAAAGGTAGA TTTCTATCAT GTAN 294

SEQ ID NO:5899

SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07005

SEQUENCE DESCRIPTION:

GATCTCCCTA CTCCATTNNN CCCTTTAATT NAAGTGGCCA CATGTATATG TCTTCCCTGC 60
TGTGTTAGGA AAATGGGGGC TGGATATCCC AAGAATCAGA GGTATATAN AAN 113

5

SEQ ID NO:5900
SEQUENCE LENGTH:171
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07006

10

SEQUENCE DESCRIPTION:
GATCGCTTTT GTGACTGTCC ATCTGTCTT GACAGTGGCT GTCATATTGA CTCCTTTGNT 60
GNTTTGTTGG TATTGGGGAC ATTTCCACG GCTGAGTTNT TTTTGACTGA CATGTTTATG 120
ACATAGACGT NGTTTTCGCA TCCNTGACTT AACTGACTT GNACNCCNTT N 171

15

SEQ ID NO:5901
SEQUENCE LENGTH:76
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07007

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SEQUENCE DESCRIPTION:
GATCTACTGT AAAAAGAGGA TTAAGNAAAA TAAATNAGA GCAATTATAT ATATAATTNT 60
ATATCATACA CAGAAA 76

25

SEQ ID NO:5902
SEQUENCE LENGTH:118
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07008

30

SEQUENCE DESCRIPTION:
GATCACGGGA GCAATGCTGT ACGGTTTTGT AACTGTTGG TTTGTTTCCT AGAAAACCCA 60
TTGNTCTCT GGATTCTAG CACATTACTA AAAGAGCCTC TNCTTTGTAA ACATGAAA 118

35

SEQ ID NO:5903
SEQUENCE LENGTH:185
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07009

40

SEQUENCE DESCRIPTION:
GATCANNCTG ANCCAATTTA CCAAGCATT TTAAGGAGGA ATAATNCCAT ACCATGTAAA 60
ATACCATGAT ATGCTGATTA TAATACATTA ACAAATTTT AAGTTGCGTT CACTAAATNC 120
TGTCTGTGTT CTTCAAAATA ATATAGCTTA AATTGCATGN TAATNGTATA TCTTACCTNT 180
TTNGN 185

45

SEQ ID NO:5904
SEQUENCE LENGTH:134
SEQUENCE TYPE:nucleic acid

50

55

TOPOLOGY:linear

CLONE:HUMGS07011

SEQUENCE DESCRIPTION:

GATCTACCCA ACTCTGTCAT CTGTAACAAC CAGTGATAAC TCTCTTGTCT TGTA AAAAGG 60
GTTTATACAT AACTTGTACA TGGTTTCATT TTGTATTNC CGCAGATTAA AAATTTATGT 120
ATTTCTNTTC TAAA 134

SEQ ID NO:5905

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07012

SEQUENCE DESCRIPTION:

GATCGAATTN CNACCCCTAA NCTTGTCGG ACGTATGGTC CAAATTCANA TTAAGGTGGT 60
CACCCAACCC GAGATGTCAG GAAAGGCCTT CTGCAGAGAA AATNTCCCC CACCCGCCAT 120
CTGCAGCCAG GTGTGTGCCA CACGGCAGCC TTCCCGAAAC ATAGTATGGA TTTAAAAAT 180
GTGTTTATTT TTNTNTCTCA ACCACTTTAT AACGTATTTT TCAATTTANN TTGTAATGTC 240
TTGTNTTGGG GNGTTGCTGG GTATCCTTNG TTATGCTTCC CACTGTTNTT NTCATN 297

SEQ ID NO:5906

SEQUENCE LENGTH:254

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07013

SEQUENCE DESCRIPTION:

GATCTAGAAT GGGGCTGCAA GNCGGTCCCC ATTTTGGATG GGTACATTC AGACACCACA 60
 CTATGGTTGC ATCACCTGTC ACACCGACCT AGACAGCTGG ATGCCATTG GNGTAGAATA 120
 ACCAGACTGG TGAGTAANCT AGAAATCATA TTACGTGAAG AGTGGCAAAA GGCCTGAGAN 180
 AGTTTAGTTT GGNAAACATG ACTTANAAGG GGCATCACTG CCCTCNCAT TTNNTNANG 240
 GCCTCATTTC CNGN 254

SEQ ID NO:5907

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07014

SEQUENCE DESCRIPTION:

GATCCATGAA GGAATCGGGA GTGGATGGAA TGCGGTAAAA CTGTCCTGGG GCCGGACCCG 60
 TNGCCCAAAG TCCGGACCNN GACCNAAAA ACGCTTCCAT CTTAGTCACG TTAGCAGAAA 120

SEQ ID NO:5908

SEQUENCE LENGTH:93

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07015

SEQUENCE DESCRIPTION:

GATCCCAATT TTGTAAAAAT ATCTGTAATA TGTAAGCATA GGTATTTGTA TATCTTAAGA 60
 AAAAAAGCCT AGAAATAAAG CCACAAAAAT AAA 93

SEQ ID NO:5909

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07016

SEQUENCE DESCRIPTION:

GATCTCAATN TGCAAACTCC TTGGNCTCCA GACCCCTGTC TGGNTGGNAC TCCTAGCAGT 60
 GTGTGGTTTC ATCAGGAAAT CCTTGCAGCA GGGGNTTAGA TGGTTCCTTC AGGAGGTGGN 120
 GAGCCTCCAT AGCATTGAAG GCCAGCCTGC ATCTCGCGGT GTGTGTCCAC TTCTCCCCTC 180
 ACTTTCCCCT NACCCATCCN TTTAAAGTGA TTGGCTGTGA GGAGCACAGA GGNGTGGCAA 240
 TTCCATCTGT TNATGGGGTC AGAAGACATA GCCGNCATGG NGATTTTACA ATTNACCNGN 300
 GTAAAN 306

SEQ ID NO:5910

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07017

SEQUENCE DESCRIPTION:

GATCATATAG AGTAGTTAAG ACAACTGTAA CAGCATTTTT TGAAATACAT TGAAAAATAA 60

TAAAAGGTAA CATAATTAAA 80

SEQ ID NO:5911

SEQUENCE LENGTH:110

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07018

SEQUENCE DESCRIPTION:

GATCTTAAGC TCTGCTCTCA GCAGATTTC A GGTGTACCAT TTGTAACTG TACTGAAGGT 60

GTGTCCTCAA GAAGAAAGTG TTCAAATTAA AAAAGCTGCT GCCAAGTAAA 110

SEQ ID NO:5912

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07020

SEQUENCE DESCRIPTION:

GATCGGGAGG ACTGTGGCCA GCAATTAACA CCATGTAGAC TTCCTTAGT CTTAAGTGGT 60

TGAATTCGCT GNTTGTCTG TAACGTTATA AATAGTNNAT ATCTGAAGAC GGAGAGCCTG 120

TANTATTCTT CAGATTAAAT GAAGCGTGAG ACACTTAAA 159

SEQ ID NO:5913

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07021

SEQUENCE DESCRIPTION:

GATCTCTCCC ATGCCTTTTA AGCAATTAGA ACTAGATAAT GCAGCCATTT GTCACCCAAT 60

TAAATTGAA AGGCCAGAAA TGCATGGATT AGCACTTCAG CTTTGTCTGC AGTCAAAGCA 120

ATTGTTACTT AGATAGAAGG ACAGTTAAAN TGAAAAATGA ATTTTGNTAA AANTGCGGNN 180

GTATAGATAA TATTCAC TTC TTTTAAACA CCCTGTATTC TGTATTNAC 240

TTGTATCATA NTTTTATTG CTCATTCCTA TTTCCCTGNG ATACTTATTN CTTNCACAAT 300

ATTTCTTCAN GTGGATATGT NCTTTAANTN 330

SEQ ID NO:5914

SEQUENCE LENGTH:299

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07022

SEQUENCE DESCRIPTION:

GATCATAGCC CTNNGCCTGG CGGCACAGCA GCACTTGCGT TCTCGGGGCT GTCGATTNCC 60
 TGCCACCTGG CCAGATAACC TCAAGATTTC CACCTTTTCT TTTCAGCTTG ATTGCATTG 120
 ACTATATTN ACAGCCAGTG ATTGTAGTTT CATGTTAATA TGTGGCAAAA TATTTTGTGTA 180
 ATNATTTNCT AATCCCTTTC TGAGTACTCT GGGGCCCTGC ATTTATNAGG CACCTACCTT 240
 CATTTTGCTA ACGCTTANNC TGAATAAAAG NTTTTTGATT CCTTAANAAA AGGGNNNGN 299

SEQ ID NO:5915

SEQUENCE LENGTH:85

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07023

SEQUENCE DESCRIPTION:

GATCCTTTGT CCAGAAGAAG CCCATGGAAT ATTGAATGTA ATACATTTAG TCAATTAANT 60
 TTTAAGNAGA TTCTTATNTA ATAAA 85

SEQ ID NO:5916

SEQUENCE LENGTH:189

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07025

SEQUENCE DESCRIPTION:

GATCCAGCTC AGGGGAGCCC TCCTCCTGAC TTTGGAGACC TCCTTCCAGA AAGACTGCTC 60
 GGACTATGGA CTCTGAGCTC TTAAGTTGCA CCCGCTGTAA TACAAATNAG TTGTTTGCCT 120
 GAATCCAAG AACTGTCTCT GTGGTCTAGG CTGTCTGAAA TTTCTGTTGA GGGTAAGAGA 180
 ATAAGGAAA 189

SEQ ID NO:5917

SEQUENCE LENGTH:215

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07026

SEQUENCE DESCRIPTION:

GATCCCTAGG GATTNTTCAT CTTAAGACTC AAAAGGCTTA ATACCAGGAA CCACCTTGGC 60
 AAGATATTTA CCCACCGGCC ATCTCTGTTT ACTCATGAAT GTTAAATGTT AAAACGCAGC 120
 GCTCTAACCC TGCNTNNNAT TTAATTGCAA ATGTCTGTAA TCTGTAATTG TNATGCCTCT 180
 GATGGAATAA NTTATCTTTT TCAGTCTCCT CTAAT 215

SEQ ID NO:5918

SEQUENCE LENGTH:100

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07027

SEQUENCE DESCRIPTION:

GATCGGATTG ATTAAAAAAC AAATNCTCTG GAATTTTNC GTTCATGCTT TTCCGTATTC 60

TTTATGGCTT TTAAATAAAT ATACAATGGT TAATAGTAAA

100

SEQ ID NO:5919

SEQUENCE LENGTH:163

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07028

SEQUENCE DESCRIPTION:

GATCAGGGGT CCGGCTGTCC TTCTGTCTG CTGCAGACTA AAGGTCTGGC CAATGTCTTG 60
 CCCCACCCCG CCAGCCGCGA TACGGCGCAG TTCCTATATT CATGTTATTT ATTGTGTACT 120
 GACTCCATCT GCCCGTCAA ATAAAAAACC ACAAGGTTTCG AAA 163

SEQ ID NO:5920

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07029

SEQUENCE DESCRIPTION:

GATCACTGCT GCTAGCTGAC TGGACCTCCC CATTGGAAGT TTGTAATTTT NCTTTGGCAA 60
 AGTTTCATTG ACTAGTAGAA CTCATTCTGT TTAGTGTAT ATTTCAATAT AAATGTAAAC 120
 ATTTTGCTCA AA 132

SEQ ID NO:5921

SEQUENCE LENGTH:249

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07030

SEQUENCE DESCRIPTION:

GATCCTAAGG AAGGAAAAAG AAAGTGTTAA AAATTAATAA AGGTTTTTTT GAATCCCGTG 60
 TCCTTCAAGT GCTTTCTAAC TTTGAGAGGA AGAAATTGAC CACCTGGACT ATGGAAGTGT 120
 GCGTAACAGC TTTGAAAGTG TATTTAAAAA TTAANTCTAT ATGCCITTAA NTCAGTGAAT 180
 TGGAACATA TTACATGNGN TTNNATGATT TNCCTCAAAT ATANTAANTN GTTTCCTTTC 240
 CAGTAGAAA 249

SEQ ID NO:5922

SEQUENCE LENGTH:191

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07031

SEQUENCE DESCRIPTION:

GATCTGCAAG TAGCCTAAAA ATGCGATTGC TGGTAAACCT GGCCTCAAAT TTCATACTAC 60
 CATAACTNNT TTTATATATT GCCACTAATT TTGACTGGAT TTAATAGCAC TTTATTGTAC 120
 AACTACAAAA AAAAANTNTA TTCCTGGANT TGTGCCNGT GTAATTNCTC TAATGTNCTG 180
 GTGCTTTNCA N 191

SEQ ID NO:5923

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07032

SEQUENCE DESCRIPTION:

GATCTTATTT CATGAAGGTT GTATAAATGA AATCATTTCAG TAATGTATCT TTTTAAGACA 60
GGTTTTTTTT TTTCNCTCAG CACAATTTCC TTGAGGTTCA TCCAGGTTGT TACCCATAAT 120
ACCAGTTTGT MAGTCTTTAT TGCNGTAGTC TATAGCATGC TTATATCACA GTCTGNCCAA 180
CCATTCACCC NTNGATGGGC ATATGGGCAT TNCNGTTTG GNGCTATTNC AANTAN 236

SEQ ID NO:5924

SEQUENCE LENGTH:101

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07033

SEQUENCE DESCRIPTION:

GATCTNTTTC ATAGTGTTCA AANCTGTATT ATTATATGTA GAGGAAAATA ATTTTCTCAA 60
CACTAATCGT TAATAACTAT TGTATTAAAT NGTCATNANG N 101

SEQ ID NO:5925

SEQUENCE LENGTH:193

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07034

SEQUENCE DESCRIPTION:

GATCTGCAGT TTCCCCTTTT NTCCCCTCTG AAGAGTGGTT CTTATGTGCA ATCTGCAGTA 60
ACCTTGAAC CCAGAGCTGC ACTATAGAGG AGAATGCATG CCACTATGAC AGCAGTATGC 120
CAAGCTTTGT NTTCATCTCC TAATAAACGT TAAGACCTTT GGTGTAATAA ANGACGACG 180
ATTCACCAAC AAA 193

SEQ ID NO:5926

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07035

SEQUENCE DESCRIPTION:

GATCTGGGGT AGGGGGCACC CTACAGTGGG ACCCNTCCCN CATTATTCTT TCTNTCCAGC 60
CCCTCCCTCC CACTGGAGCA GCTCCAGAGN CATTCTCAC CCCCGTNACC TCTCCAGCC 120
AGGGCTGAGA GGATTGAGG TGGCTGGGAG GGTTCAGG CCCCCTGCC CTTNCCCACA 180
AACTGGGTGN TAGGGCGGAC TTACCTGGCC CAGCCCTGCC TCCNTNAGCC AACCAGNCC 240
NTNGGGCTGT N 251

SEQ ID NO:5927

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07036

SEQUENCE DESCRIPTION:

GATCTCGATA TTTCAAATGG GCTTTNNATG CACTGTTGCC AAGAAAGGCT TTTCCTGATT 60
TTTNNACAAN TNAATTTTGG CACACTTTCA TTGGTGTCTT TCGGCAACTT ACATTGAAAN 120
TGAGCTATTG TN 132

SEQ ID NO:5928

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07037

SEQUENCE DESCRIPTION:

GATCCCTGGG TTGCCCTGTC CCAACCTGCT TGTTAGGTGC TTTCCCATAG NAGGCCCTTC 60
TTGAGAAACA ATAAACTAGG TAGAACTAAA 90

SEQ ID NO:5929

SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07038

SEQUENCE DESCRIPTION:

GATCTCAAAA CTCATTGTT GTACCATATA TNATGGTTTT NTGTCTATAT CATATATTTT 60
CCTACTTATG TGTAAATN CTATTNGTN ATGTCAATCT CTCTGATGCC ACCTATTTN 119

SEQ ID NO:5930

SEQUENCE LENGTH:252

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07039

SEQUENCE DESCRIPTION:

GATCGGGGCC AGAGGCAGAA CCCTGGTGAG GAAGCTCCAG TCCTGCTCTC TACCCAGCCC 60
ATCTTGCTC CATGGTGCCT CTGGAGGCCT CTGGGCCTCC TCTAACAGGG GCTGGTGGGC 120
ACCAAGAGNC AATGGAGTAG ACCCCTGGNT GGTAAGGNC AAGTNCACC GGTGCTTCT 180
GGGAAGGGGT TTCTAACT AGTTTGTGTG CTGTGTTCC TGGGGTGCCC TCCACTGCCC 240
TCTNITCAGG AN 252

SEQ ID NO:5931

SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07040

SEQUENCE DESCRIPTION:

GATCCCACTG CAGTGGTGCC TACATTTATC ATCATGGCTC CTCTTGAATA AAATCTACCT 60

TACCATCTTC AACAAA

76

SEQ ID NO:5932

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07041

SEQUENCE DESCRIPTION:

GATCAGCACA GTAATGCCCA ACAATATTGT TTTAAACAA AAAATGTAAA CATTCAAAAG 60
 AATCTCTCTA AATCACTGAT TAANTCATTT GACTGAAAAC AAA 103

SEQ ID NO:5933

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07043

SEQUENCE DESCRIPTION:

GATCTACCCG NCTNGGCCTC CCAAAGTGCT GGCATTACAG GTGTGAGNCA CCGTGCCCGG 60
 CACCAGNATC CTTTGGTATA GCCAAGCCTT TTGGTTACCG NCTCATGAAG AATATGCTTC 120
 CCGCATITGC CTAGTCCAG TTGTATTCTC ACAGGTGTTA TGNGGGGGGC ACAATCCAAA 180
 TNATAACCT GGTTCATGNC CAACANATTT NTGCTAAATA GGGAGGNGGG N 231

SEQ ID NO:5934

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07044

SEQUENCE DESCRIPTION:

GATCTGAGCC CAGCGTACAG AGAAGGCTCT GTGCAGACAC TGCTCACACC TCCAGCTCCC 60
 AGCTCACCTG CCCACAGGT GCCAGGNTAC CTNTTNANT GGCCAGCAGG GCCCTNACCA 120
 TCCTCAGCCT GCNTTCCAGT CGCCCATTTCT TTCCATTCTG CGGCTCGTGC TTAAAAGCA 180
 ACCAGCCAAC CNTTTNGAT ATAGTAGGGG ACTTGAAAGG GGCTAAGAAG ACTGANGATG 240
 GTCTGCCACC TTAAACCACA AGGNTTNGGG CTTTGGTTN 279

SEQ ID NO:5935

SEQUENCE LENGTH:235

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07046

SEQUENCE DESCRIPTION:

GATCTAGGAG AAGGGNCTCA TCGGACCCT CACATGGGCA GAAAAATGGT GGTCATTGGC 60
 CGACATCACA GTTTCCNGT TTCCACCCA GCTAAAAACC GTTGTGCT TTAANTTTNN 120
 ATAAACTGGA ATCCTTTCAC CCGCTCCTAC AGCTAACCTT CACANGCATG AGGTGCTGTG 180
 GCTGTNCCTT ATCCTAATGA TCGCTNNGG NCCCGTAAAT GTNAACACTC ATGAN 235

SEQ ID NO:5936
 SEQUENCE LENGTH:119
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07047
 SEQUENCE DESCRIPTION:
 GATCAGTTAC ATTCATCAGT TGGTGAGTTT TGAAGAATAA CTACATTNA TTTCAAATA 60
 ACAAATGTAT ACGGTTTTAG TTCAGTGTG AAGAATTNA ATACAATATT AANTNNCTN 119

SEQ ID NO:5937
 SEQUENCE LENGTH:213
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07048
 SEQUENCE DESCRIPTION:
 GATCCCTTTT NAAAAATATA TGTATGCATG TNTGCATTAA AGAGTCTGAA AGGATACTTG 60
 CCAAAGTGTA AAAGCATTTA TCTCTGGGAG GTGAGATTG GAGCAATTAT ATTTNCTTTT 120
 TGCATATCTG TAACTNCTNA TTTCCCNCAA TGNGCATGTA GTGTCTGTAA AATTTTCCAG 180
 GGAATAANCA NTGATGTTCA CAATATATAT TNN 213

SEQ ID NO:5938
 SEQUENCE LENGTH:147
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07049
 SEQUENCE DESCRIPTION:
 GATCCAGACC ATCCTGGCTA ACATGATGAA ACCCTGTTGC NTGTNGTACC AACTACTTGG 60
 GAGGCTGAGG CAGGAGAATG GCATGAACTC GGGAGGCGGA NTTGCAGTGA GCCTCCAGCC 120
 TGGGCAACAG AGTGAGACTC TCTCAA 147

SEQ ID NO:5939
 SEQUENCE LENGTH:299
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07050
 SEQUENCE DESCRIPTION:
 GATCCTGGGA GCCTCTGTTT TTTGCGCATT TCAGACACAG TCTGTGTGGC GAGGAGTGTG 60
 ANGGNAGGAG CCTNGGGTGC AAGCCCGTGT NTTGGCCTC TTTCTCGTG AAGACGATGT 120
 GTCCCCGTCA GAAAAAGTGG GCTCCNTCTG CAGCCCCGTG AGCTGAGCCC AGGCTGCGTA 180
 GTGACCACAA GCTTATGTGN AGCACTGCTC AGGGAGGNTN TCAGGAATTC CCCTCACCTC 240
 GGAAGGANC TTCTCAGTTT TTATTGGGGG TGTNTAAATT TNCTTNCATA TNGTTCATN 299

SEQ ID NO:5940
 SEQUENCE LENGTH:186
 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07053

SEQUENCE DESCRIPTION:

5 GATCCTTCAG GCAGTAAGGG AGAGTTTTC CTCCTTACAC AGTGGCCTTT GCTTGCACCT 60
 CCAGCTGGAG ATGGGTGTGC CCCAGAAGTA AGCTTTGCAT CTCTTACAAG AGGGGAGCTA 120
 CAGGGGCAGC CGTGGCCTAG GCCCAAATC TGCTCTGAGA AAATAAATAT CTGTACCACC 180
 TGTAAA 186

10

SEQ ID NO:5941

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS07054

SEQUENCE DESCRIPTION:

GATCCGGTNA TGGTCTGGGC AGAGGCTGGG TCAGGAGTCC CAAAGGTCAG TGACAGTTTC 60
 TCAGAAGAGG CCCAGCGTCC ACCTCTCTCC CAGGGCCAGA CACCTCTTCC TGGCTCCCCC 120
 ATCCCCCTAT GGGCTCCAG CNCCTTGAC CCTCATTGCT GNNNAGATTA AAGCCTCTGT 180
 20 TTTGCACCTG TCAA 195

SEQ ID NO:5942

SEQUENCE LENGTH:116

25

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07055

SEQUENCE DESCRIPTION:

GATCATTCAC TGTTTTNGTT TAAAACTGG TCAGTACTAT GAAGCTTCTG TGGTTTGTAT 60
 30 GATGTTTTAA CTTTCACTTT AAAGTGCATA GAATAAATTA AATTGAAAAC ANCAA 116

SEQ ID NO:5943

SEQUENCE LENGTH:116

35

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07056

SEQUENCE DESCRIPTION:

GATCCGNAAG CNAGANACCC TGCAGGCTGG CGGGGACCCA NGGGAAGGC CTTCCCAGGC 60
 40 CCTTCTAACC CCTGTGGCCC TGGACTTTCC TTGTNTGGAC TCACCCAGG CCTGGN 116

SEQ ID NO:5944

SEQUENCE LENGTH:179

45

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07057

SEQUENCE DESCRIPTION:

GATCATAATC ACTGCCCTAC CNNCCTCAG GTTGTNGTAA GGAAGTGTG TGTGGAAGTT 60
 50 TTTAATAAAC TTTGGATGCT AGTNTACTTA GGGGTGTNC CAGGTGTCTT TAATGGGGCC 120

55

TTCCAGACCC ACTCCCCACC CTTNTCCCCT TCCTTTGCCC GGGNACGNCG AACTCTCTN 179

SEQ ID NO:5945

SEQUENCE LENGTH:166

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07058

SEQUENCE DESCRIPTION:

GATCTAGATT AGCAATATAA AGAAGCATAG TGGTACTCTG TTTCACACTT TCAGTAGATT 60
TATTAGAAGT CAAATNCTAT TCAACAGACA CTTATTAGGA TATACAATA ATTTANGAAT 120
AAAATTCCAG GCACAATATA TTTNNNTNAA NTGGTATTG TNAGTN 166

SEQ ID NO:5946

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07059

SEQUENCE DESCRIPTION:

GATCTTTTGT GACTACAACT TCTNTTGTA ATAATGATAT ATGGTATTNC CATCGTCAGT 60
TACCGAGTAT AGCCACTGGG TATCACTACT TTGTGTTAAA GTGCCITTCG ACTTTAAGTA 120
CATTACTTAA ATGTTGCTTT TAGCTTTGAT AAATTGAAAA TATTNAATG GGNNGGGGNN 180
TTGAAATTGA AAACACTGTA AAATAGGTTG GNGTGTGAGC NNTATTANGN 230

SEQ ID NO:5947

SEQUENCE LENGTH:177

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07060

SEQUENCE DESCRIPTION:

GATCCGCCTA CCTTGGCCTC CCAAAGTGCT GGGATTACAG GCATGAGCCA CCATGCCCAG 60
CCAGNGATTT AATTNTTAAT AACTAATTN AGGGCACAAT TTGACCTCCA TTGNCAGCCT 120
GTTTGTATTA CTTAATGTGA ATATNTGTGT GTTTTGCCAN GGGNTATTGA NGTATTN 177

SEQ ID NO:5948

SEQUENCE LENGTH:96

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07061

SEQUENCE DESCRIPTION:

GATCTCCAGG CCCAGCCTGG CCCCCAATAT TCTTTCCTTT CATCCTCAGC AAGTGCTGAG 60
TCTGTGAATA AAGCCACATA ACCAGCGGGC ACTAAA 96

SEQ ID NO:5949

SEQUENCE LENGTH:191

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07062

SEQUENCE DESCRIPTION:

5 GATCATAAAG CCACCGGCCA CTGCCACGCA TGTTCACCT GTGCCATCGT GCTCCCTCCT 60
 GATGGGCACC GTGGTGGAGG AAGTCACCCA GCTGTTTCTC AGTCCCAGAG GCCGGTGGCT 120
 GGTTTTAAAC TTGTGTTGAC TGTTGATACT TATTACTGT ATAAATATAA TTNATCATTT 180
 GTACCATGAA A 191

10

SEQ ID NO:5950

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS07063

SEQUENCE DESCRIPTION:

GATCCAAC TG GGAGAACCTC AGCCAATGCT GGAAGNATGA TTGAAGTACC TCTCTTTTNT 60
 NACTCTTGTA CAGCTTAATG TGCAATAAAG GAAAAGTTAT ATCTGTAAA 109

20

SEQ ID NO:5951

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25

CLONE:HUMGS07065

SEQUENCE DESCRIPTION:

30 GATCGACCTG AAACCTCTCA CCAAAGTNCT CGNNCCGGAG CACGAAGTCC GGGAGGATGA 60
 TGTCCACTGG GACTGGGACC ATCTGTTTAC TGAGGTGTCC TTAGAGGTCC TCACTGAGTG 120
 GGACCACTG CAGACGGAGA AGGAGNACCC TGCNGGCCAG GCCATNCACA CCTNAGCCCG 180
 TCACCCATGC TCTAGACATN AAGAANTGCA ANGGGN 216

SEQ ID NO:5952

SEQUENCE LENGTH:192

35

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07066

SEQUENCE DESCRIPTION:

40 GATCCACCAA AATAAATGAT TTTCTACATT TTCATTTGGA CTAAATCCCA CGAATGACAA 60
 CTACCACCTT TTTTCCTTT TTAATTAATA CTAAATATTG TGATTICTTA TTTGAGGTTC 120
 AAAATGACCT GCTTGAAACT TTGATACATA TTGAATACA TTATGTTAAT AAAC TTGTAG 180
 CTTTTTGTGA AA 192

45

SEQ ID NO:5953

SEQUENCE LENGTH:298

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50

CLONE:HUMGS07067

SEQUENCE DESCRIPTION:

55

GATCACACCC TGAACAATT GGNGGATTGC TTGCTGCCCT GCATCTTAAG GCGTATTCTA 60
 GCAGCAAAGC TTGTNATGCA CTGACTTGGG GCAAGTAAAA CTGATGCTGA GGACAAAGGG 120
 AGANGATGTT CCTCGCCCAG GGAAATNAAA ACTTTNCTNA TTCACCTTGC TTGTGCTTAA 180
 NCACCTATGT NCATCTAGTG TAGAATACAT GGCTACTTGT TTGTAATTNT NTNATTGGTG 240
 GAATTAAAGT AATTTCCCT TATCTTTGAN CTTTATTTA GAGAACTNAA ANAAAGCN 298

SEQ ID NO:5954

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07068

SEQUENCE DESCRIPTION:

GATCTNCAGG GGNATGTTTT ACCATCTGNA TCCAGCCTCC TGCTAACTCC TAGCTGACTC 60
 AGCATAGATT GTATAAANTA CCTTTGTAAC GGCTCTTAGC ACACTCAGAG ATGTTTGAGG 120
 CTTTCAGAAG CTCTTCTAAA AAATGATACA CACCTTTCAC AAGGGCAAAC TTTTTCCTTT 180
 TTCCCTGTGT ATTCTAGTGA ATGAANTCTC AAGANTCAGT AGANCNAATG ACNTTGGNAT 240
 GTAATGNTNN 250

SEQ ID NO:5955

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07069

SEQUENCE DESCRIPTION:

GATCCGTNAA TNCNCGGAAT GGCAGGGGAA GCCTTGCACT AGGTTGCAGA GAAGCATCCT 60
 CCACATCCTG TGTGAGAAAC CCTGGTCTCC GTGGCACTTG TAACTACCG TNCTGTCTNC 120
 TGGTCTGTNT GTGTN 135

SEQ ID NO:5956

SEQUENCE LENGTH:193

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07071

SEQUENCE DESCRIPTION:

GATCTAGAAT TGACATTTTG CCTTCTTGT TCCAGGTGTT TCTATTTTTT CTATTCCTTC 60
 AGAGAAATCT CATATTCGG TGTATTTATT GCTGTACTA CTATATTAC TGCTGAAAAC 120
 TGTAACAACC TGAAGATTTG TAAATGTTA AACATAGTTC ATTAATAATA ATAAATAAA 180
 TCTAAATGT AAA 193

SEQ ID NO:5957

SEQUENCE LENGTH:273

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07072

SEQUENCE DESCRIPTION:

GATCCTCCAA AGGCCTGCCC CATGNATTTA ACAGTAATAC AGGAAGCATG GCAGGCACCA 60
 TGCAAACCAA GGATGGATGG TGCAGTCCCT GTGTCAGTGG GCGGTGGTTT CCTGCTGGCC 120
 TGGAACTACT CATCACCTGA TTGATTGGCT CTGTGGTCCT GGGCAGGTGC CTCATAGGTG 180
 TGTGGNTATG ATGACGTTTC NNTAAAAATGT ATGTNTTTAA CANATACTNA ATNGTATTAN 240
 GGTCATGTAC CAATGGNTTT NATAATGTTT NTN 273

SEQ ID NO:5958

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07074

SEQUENCE DESCRIPTION:

GATCAGAAAG NATTAAATAT CACTACCACA TGAGTTAAAA CAAAAAATGG AATAAAAAANC 60
 AAAAGTGGTG TCTATGTTAT CAGTGGNTTA CTTGATAGGN CATTNAN 108

SEQ ID NO:5959

SEQUENCE LENGTH:256

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07075

SEQUENCE DESCRIPTION:

GATCTTCACA AGGNTTGTAT TGGCCACATC CACGTCCTCC GAGCCTACAT CAAGACCCAA 60
 GTGAACAAAG AGCTGGAGCA GCTCCAGGGG CTGGTGGAGG AGCGGCTCAA GGCCAGCGAG 120
 GAAAGGCTCA GCAGCAAGTT GACTGCACTA GAGCGGCCCT TCCAGCTACC TCCGGGTAAA 180
 GGCAAGAGCA AGACCAAGTG ACCCCCAACA TTTTCCCAA TAAAGGCTG GGCCAGANTG 240
 GCACCATCCC TGCAAA 256

SEQ ID NO:5960

SEQUENCE LENGTH:262

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07076

SEQUENCE DESCRIPTION:

GATCTAGTCA TCTGGTTAAG GATTTTAAGC AGATGCAACT ATAAACCCAA GAACTGTAT 60
 TACTATTACT GTTGGTCATA CTAAACCTGT CTATTTCTG AAGTATATGA CCCACAAGGA 120
 TGTGGAATAA CTAGGAGAAA CTGTTTTTGT AACTGTACA TCCTTAGTAT TTTTACACGT 180
 ATATGATAGG GATGAACATG ATTTNCTTC GTACAGACAG CTTANNTAAN GCACTATGTC 240
 ANTCTGCAAA ANAGNNNNNN NN 262

SEQ ID NO:5961

SEQUENCE LENGTH:295

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07079

SEQUENCE DESCRIPTION:

GATCTCAGCT CACTGCAACT NNTGCCACCT GGGCTTAAGC CATCCTCCCA CTCAGCATC 60
CCAAATAGCT GGGACTGCAG GCACACACCA CCACACCCAG CTAATTTTNG TATTTTTTGT 120
AGAGACGGGA TTTCACCATG TTGCCCAGGC TGGTGTGAA CTCATGAGCT CAAGTAATCT 180
GNTGGCCTTG GCCTCCCAAA GTGCTGAGAT TATAGGCGTG AGCACTGCAT CCAGCTCACT 240
CCTNATTCTT TTCTAGCCCC AAAGGGGTTG AGTCAGCAA TCCTNCAGCC TTTTN 295

SEQ ID NO:5962

SEQUENCE LENGTH:272

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07080

SEQUENCE DESCRIPTION:

GATCCTGGAA TGTTCCTGG AGAAATTAA AATACNGGGG TTTTTNTTT AATGGTGCCT 60
ATTAGAGTT GGAAGTTGAA CAGCTGTTGC ATTACATACT TTTCCTTTT NATTGAAATT 120
TTGAAATCAA ACGTCTTGAT TTTCCTNTCC TGTGAATTG CTATGTNCAG GATGTCCTAG 180
GGGGTGGGG CAGGGACTCT TTTCGTAATA AGCACTGTG TATNTGGTG TGTGTGGNGT 240
ATAAANGGCT ACACCCTTAT TNTAAAAANN NN 272

SEQ ID NO:5963

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07081

SEQUENCE DESCRIPTION:

GATCTGTCGT CTCAAAAA ATGGCAAAGT GGGAAATGTG GGAGGGGAAA ACACTTCAGA 60
ATAAAGAGA TTTAAGAGAT GTATCAACAA A 91

SEQ ID NO:5964

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07082

SEQUENCE DESCRIPTION:

GATCAGGTTG TCTGCATTG TTGGTGTAA TGAACATCAT CACAGTTATC CTGAGTTGAG 60
TTTAAGCCAA ATANATGCAT AGAAAAGGT CTCCTATTA ATGGAAGANG GTAATTTTAA 120
GGATGTGTAT TATTTAGTT TTGTATGTTT AACTNTNATT NAATAAAGTG TTTTAAAAAT 180
CNCAAAAATN ANNN 194

SEQ ID NO:5965

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07083

SEQUENCE DESCRIPTION:

GATCTGCCG AAGAAAATAT CTGTTTCTA TATAAAAAA TTTTAAAAA TAATTGTAAA 60

5 GTTAGATTTA AAATTGTAAA ATATAAAATC ACAAAGGAAT GTACCTTATG AATGTTGTTG 120
 ACATTTTATG AAATTATGTG GATTCATATT ACTGTTACAA GATAGANTTG AATGCAAAAA 180
 GTCCAAAACC TCAATAAANT TTGAGGAAAA CGTGTATTATG TGAATTGAN NTANAANCAT 240
 TTTATAATTG TGCANGTNAN NNNNAN 266

10 SEQ ID NO:5966
 SEQUENCE LENGTH:256
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07084
 SEQUENCE DESCRIPTION:
 15 GATCCTTTTN AGTTTTTCCA GGTGAGAAAT CCTATCAATT ATGTNATAAT NATATGTTTT 60
 CCTNTTCAAA ATTTATAACA TAATTCCTGA CTGCATGGGT TAAACATTN CATAACAGTG 120
 CTAATAATA AAGGTGGCAG TGGCATTITT GTCTTGTTTC TCATTTIAGC CAGAATGTGT 180
 TTGCTACAGC AATTCCAAAT TGTGTTTTGT GAAAAANAAA TATTCTNCTT NGGAGACANG 240
 GNNTNTACAT TTGCAN 256

20 SEQ ID NO:5967
 SEQUENCE LENGTH:119
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS07085
 SEQUENCE DESCRIPTION:
 GATCAGAACA GGCTTAAATT GATGCTATAG AACCAATTAC TCTGTATTAT CTTTGCAACT 60
 CTTTGTGAAG TCTAAAAATG TTGGNAATA AAAGTTTATT TTAAANNNTA AAAAAANANN 119

30 SEQ ID NO:5968
 SEQUENCE LENGTH:146
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 35 CLONE:HUMGS07086
 SEQUENCE DESCRIPTION:
 GATCTTCTAA TCGACAATCT ACATCATAGT GACCACCAGT AATCACCTGT AAGAGATTAA 60
 AAAAGAAAAA TCACTGTGAA AAGTGTGAAA AATTAATCAG ATTTAATCAG ATTTCTTATT 120
 AAAATGGCAA TAAGGTGATG GGCAAA 146

40 SEQ ID NO:5969
 SEQUENCE LENGTH:203
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 45 CLONE:HUMGS07087
 SEQUENCE DESCRIPTION:
 GATCTGGTAA AGTGTGGGGC ATCTCATCCC CCACTCTNTC CCTTCTTGCT CCTGCTTCCC 60
 CCTTATNACT TGCCAGCTCC TGCTTCACCT TCCACCATGA GTAAAAGCTC CCTGAGGCCT 120
 50 CCCCAGAAGC CAAGCAGATG CCAACACCAC GCTTCCTGCA GCCTGCAGAN CTGTGAACCA 180

55

ATTAAACCTC TTTTCTTTAT AAA

203

SEQ ID NO:5970

SEQUENCE LENGTH:72

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07088

SEQUENCE DESCRIPTION:

GATCTTCCAA AAATTTATTA AGTGTTTACT TTAAAGTGG AAACAATGTT TTTAAGAGGT 60

GATATAAAGA AA 72

SEQ ID NO:5971

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07089

SEQUENCE DESCRIPTION:

GATCCCTAGC TTGTTTTCTG TCAGTCATNC ATTGTAAGTA GCACATNGCA ACAACAATCA 60

TGCTTATGAN CAATACAGTC ACTAGGTNTT AGTTTNTTTT AAATAN 106

SEQ ID NO:5972

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07091

SEQUENCE DESCRIPTION:

GATCTGTGTG ACTGATGGGC AGGGCTCAAT GATGCCCAT GAACTGAGCT TACTGCTCAC 60

ACCACTGACC TGGACCCNAA CAAAAGCTG ATTGTCTTTT TAAAAGTTAT TATTTTGCCC 120

TGAGCAAATT GCATTTTANT TGGGGCAGTT GGAGTGTTGA NTTCTGGCA GCATTGTGAA 180

GNNGACCNNG GTGGANGTTT NCTGTCCCNG GN 212

SEQ ID NO:5973

SEQUENCE LENGTH:215

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07093

SEQUENCE DESCRIPTION:

GATCTACCCA CCTTGGCATC CTAAGTGCT GGGATTACAG GCGTGANTAC CAAGCCCGGC 60

TTTTTTTGTG TTGACATGGA GTTTCGNTCT TGTCACCCAG GCAGGAGTGC AGTGGCGTTA 120

TCTNGGTTCA CTGCAACATN CGCCTCCTGG NTTCAAGTGA TTCTCCTGCC TGAGCCTCCC 180

ANGNACCTGG GNTTACAGGT GCTCCNACCA AGNTN 215

SEQ ID NO:5974

SEQUENCE LENGTH:140

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07094

SEQUENCE DESCRIPTION:

GATCTGGAGG TTTACAGAAG CCTTACCCA TCCTGAGACT CAGTTCTGCT GTTGGTCTNC 60
AGAGAAGTGT CTGCACCTGC TGAGANGNAA TCACACCACT GCACTCTAGA CTGGGCAACA 120
GNGCGAGACT CTGTCTCAAA 140

SEQ ID NO:5975

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07095

SEQUENCE DESCRIPTION:

GATCTGTGA AGAACTCAGC TGCTGGAAAC CATGCAAAAT GTTTGAATT GCCCTTAAAA 60
TATGGAAAAT GTTTTCTGAA TGCTTTATAT TCTNCTGCT GTAAATTAAT AATGANGAAA 120
ATTTCCTCAT AAA 133

SEQ ID NO:5976

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07096

SEQUENCE DESCRIPTION:

GATCCCTGCC CTTGGCACA TCCACTGAAA GGCCAAACAG CAAGTCCGAG TGAGTTTAA 60
ATATTAATTA ATCACCCTTT ATTTTATACA CTTGAGAGTG ATTGTAATAA AGGCTGTCAT 120
TAATAAACTT GGTCTACCT TAAA 144

SEQ ID NO:5977

SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07097

SEQUENCE DESCRIPTION:

GATCTAGAAA TTGCCCTCCT TTTACCCCTA CCATGAGCCC TACCAAAACC AAACCTANCC 60
CTGGGCAACT AANTAAGGTT ATTGGACATN CCCTCTNAA TTAATNATCC AATN 114

SEQ ID NO:5978

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07098

SEQUENCE DESCRIPTION:

GATCTGACTT CAGACAGAAA CCAATACCAG CTTCCCTTTC CTTTAAACNT TTGAAGAGTG 60
TTGATTTGTT ACTATATTAC GTATGCAAAA CTGGAGAGNG TATNGNTNGA TN 112

SEQ ID NO:5979

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07099

SEQUENCE DESCRIPTION:

GATCCGTCCTT TAACAACTA GGAGGCGTCC TTGCCCTATT ACTATCCATC CGTCAATCCG 60
TAGCAATAAT CCCCATCCTN CGATTATATC CAAACAACAG ANGCAATTGAT ATNNTNGCCC 120
NACGTAAGGG N 131

SEQ ID NO:5980

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07100

SEQUENCE DESCRIPTION:

GATCATGTAG GACGNGGCAT CCTGCCCTG GTAGAGAGGA CGAATNTTCC AAAACANTGG 60
GCTCTACGGN AAAAGAAGT AGGTTAGTCA CCTTCTGGAC CCTGTCTAAC TCGTTTGCTN 120
AANAGN 126

SEQ ID NO:5981

SEQUENCE LENGTH:79

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07101

SEQUENCE DESCRIPTION:

GATCTTATTT AACCAAGAC TATTTCAATC CTGATATGAT TTGTGTGCTT GATTAATAAT 60
GNANTTAATG ATATTGAAA 79

SEQ ID NO:5982

SEQUENCE LENGTH:271

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07102

SEQUENCE DESCRIPTION:

GATCAACAGG CTTATTAGAA GAATGAACTA AGGTGAGAGA CCTCATCCTG AGAAAGGTTG 60
AGTTAATGTT AGAGTATAAG TGGTGGTAAT CTTGAATACT TTTCCCATTA AATATTGATG 120
GGGGTTTGAN TTTAATCAG TGCTTTTNTG GGNAGTGGGG GTCAACTATC TTAATGATTA 180
CAGTTGGTTT GTTACTGCT TTTGAGGACC TTTCTGGAGG AAAGGAAAAG CCTGTTTTTG 240
GGAGTCTTTA AAGATGGAAA TTGGGTGGTC N 271

SEQ ID NO:5983

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07103

SEQUENCE DESCRIPTION:

GATCAATATG TGACTGGAAC CATTGGCGAG GATGAAGATT TGATAAAGTG GAAGGCACTG 60
 TTTGAGGAAG TCCCTGAGTT ACTCACTGAG GCAGAGGAGG ANGNATTGGN TTNNGAACCT 120
 GCNTN 125

SEQ ID NO:5984

SEQUENCE LENGTH:73

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07104

SEQUENCE DESCRIPTION:

GATCTNATTG TATTGTCGAA GGACTATTTT TNAACCTGTC CAAATAAACT CTGCAAAGNA 60
 TTTCACAAG AAA 73

SEQ ID NO:5985

SEQUENCE LENGTH:331

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07105

SEQUENCE DESCRIPTION:

GATCCTGCCC TGCTCTCAGC CATAGTGAAG GACCAGCCCT AGGAGTCTGC GAGAGCCTCC 60
 TTGGTTCCAT CGTGAAGCCA TAAACAGGAA TGCCCTTTGGC AATAGCCTTG AGCCTAGAGG 120
 GCCCTCTNAT GGGGCACTGA GGTGCTGTTG GTTTATTGCT GGCANCGTGA ATTCTCTCAG 180
 GGGTCTAGGA GGGGCATTTT GGAGACTGCC TGACANCACC NCTATCCCCT GCCTCCCN 240
 CTNAGAAGAG GGTGGAAGNA TGAATGAAA GCTATGGGNC TTTTGGGAGG NTAACCCAGN 300
 GTCTATTCTA GGGTTNGNGG AAGTGNNTAA N 331

SEQ ID NO:5986

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07106

SEQUENCE DESCRIPTION:

GATCCCCTGG CCTGGTGCCC AACTGCCTC GCAAGCGCTC GCCACCCTCA CGTGGCTCAC 60
 CTGCTGTTGA GCCTTGCTGT GTCAATAAAC GGTGTGAGGA TTGCAA 107

SEQ ID NO:5987

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07108

SEQUENCE DESCRIPTION:

GATCAGATAT ATCCACAACG NGTTTAAGAT TTTCAATATT CTTAGAGAAA ATCAATAAAG 60
 TCAATAACTA CTCCACCATG AAA 83

SEQ ID NO:5988

SEQUENCE LENGTH:157

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07110

SEQUENCE DESCRIPTION:

GATCAAAAAT TGTGGACATA TCTGCAAATN ACTACCTATA GCCTCATGAA AGTACATTTC 60
 ACAAAATGTA AANNCAATG AACACTAAAT TTAAGAGCAG TTACAGTGTG ACTCACTCAT 120
 GTTTAAAAAA ANTCGGNGAG CTAAAAANTA CGTCTAN 157

SEQ ID NO:5989

SEQUENCE LENGTH:280

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07111

SEQUENCE DESCRIPTION:

GATCGAGTCT GCTCTGACCT CTCAATCTCC TTTCCTCCCC AGGCTGCTGC TCCTGCTGCC 60
 CTGTGGGCTG TGCCAAAGTGT GCCCAGGGCT GCATCTGCAA AGGGGCATCG GAGAAGTGCA 120
 GCTGCTGCCG CTGATGTCGG GACAGCCCTG CTCCCAAGTA CAAATAGAGT GACCCGTA 180
 ATCCAGGATT TTTTGT TTTT TGCTACAATC TTGACCCCTT TGCTACATTC CTTTTTNC 240
 GTGAAATATG TGAATAATAA TTAACACTT AGACTTGAAA 280

SEQ ID NO:5990

SEQUENCE LENGTH:205

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07112

SEQUENCE DESCRIPTION:

GATCTCCAAG CAGGAATATG AGGAGGGCGG GAAGCAGTGC GTGGAGCGAA AGTNCCTCTG 60
 ATGGCACTCC TCCCCACACA CCTGCTCCCA AGCTCAGATG GAAGTCCCTT AACCCCATG 120
 CCACATTGCC CCCCTCCTCC TTCCCTCTT GTCCTCATT ATGGTGATGT TTCTGGGTTG 180
 AAAGAAGTAA AAATGTTTAA AGAAA 205

SEQ ID NO:5991

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07113

SEQUENCE DESCRIPTION:

GATCTTTAGC AGTCTCTTCT AGTTTCCTG GATTTCATG ATTTATTANT TAGGGAAAAT 60
 GAAAAGAGGA CCTTCTGTC CGCCTGCACT GCTTACTGGT AAATAATAAC AAATTATGC 120
 TGCCAAA 127

SEQ ID NO:5992

SEQUENCE LENGTH:240

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07114

SEQUENCE DESCRIPTION:

GATCGCTTGA GCCTGGGTAG AGGCTGCTGT GAGCTGAAAT GCGGCCNCTG CACTCCAGCC 60
TGGGTAACAG AGCGAGNCCC CGACTCAATA AATAAATAAG GATGGATAAA TTGTAGCGTA 120
TGCACCATTC ATTATGCTAA GACATTTTAA AGTAATTATG AGAAACGCTC TACTAATGAT 180
TTGTTTTTAT TTGTATTTN CTGCTTATTA GACAAATATA TNCTCATTTT AAAANGGAAA 240

SEQ ID NO:5993

SEQUENCE LENGTH:328

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07115

SEQUENCE DESCRIPTION:

GATCAGAACG AGCTGTTAGA ATTCAGAGTG CTAGAACTCG AAGTAAGAGA CTCTATCTGT 60
TGTAACCTCT CAAACGGAGC AGACATTCTC TTTGAACCCA AACTGAAATT CATGTAAAGC 120
TCTCAGATGT TTTCAAGCAT GTGTAAAGGG GACATGTTAT AGTTTCITTC TTTCTTTCTT 180
TCTNTNTTTT TTTAAANCTG TATGTNCAGA ATANTTNCNC TGCCTTAATG TGTNCTGGNG 240
AGCGTGTCTA CCCAGGNCNTN TGGCCATGTN CCAGAGCTAA TATATTTNTT GCCTATGGCT 300
TNGTNTGGCA CTTAATGAAT ANTTGTGN 328

SEQ ID NO:5994

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07116

SEQUENCE DESCRIPTION:

GATCTTCAAA ATCCAGGAGG GAACCGAGAT AACACAAGTA CAGGTGTGCA AAATTACTTA 60
GTAAACTAT TTNTTCTATT ACTCCTTTT TGCAAGTACA TACATTAAAT GATAANTTNA 120
TTGTGAAGTT AATAAANTGC CCATAGCTGT TCTATTACCT TCAGAACTA TTTTCATAAT 180
TGANAAANAC TTGGNGTAAG TACATGTGTT ATATANCACC TACCCTAGNT GCTCAAGTGC 240
GTNNNGGAGN 250

SEQ ID NO:5995

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07117

SEQUENCE DESCRIPTION:

GATCCTCCTT CCTCAGCTAC TCAGGAGGCT GAGGCAGGNG AATGGCATGA ACCCAGGAGG 60
CAGAGCTTGC AGGGAGCCAA GATTGTGCCA TGGCACTCCA GCCTCGGCBA CAGAGCAAGA 120
CTCCGTCTCA AA 132

SEQ ID NO:5996
 SEQUENCE LENGTH:78
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07118
 SEQUENCE DESCRIPTION:
 GATCCTATAG GGAGGNCATT TCCTGTCCTG GAATTAGTAT TTCTAAAAATG TGNATAAACT 60
 TGTITTATAA AAAGCAAA 78

SEQ ID NO:5997
 SEQUENCE LENGTH:118
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07119
 SEQUENCE DESCRIPTION:
 GATCAGAAAG TGTTATTTAA CAGAACTAC ATACATTTT NATGTCTCTC TGGACCCCTT 60
 GATTCTAAGT AAATTNCAG TAAGTNAGCA GTAATAGACT ATCCTNTTCA NCTATGAN 118

SEQ ID NO:5998
 SEQUENCE LENGTH:60
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07120
 SEQUENCE DESCRIPTION:
 GATCAAAAAG AGGAACTTG AAATGTGATG GTGTTTATAA TAAAAGATGG TAAAACATAA 60

SEQ ID NO:5999
 SEQUENCE LENGTH:127
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07121
 SEQUENCE DESCRIPTION:
 GATCTCCTTC AGAATTTTTC TCTTGACTTT GAATCTTTGC CTGTTTGTCT AAACATTTGA 60
 CTAACATTCT GTTTGAATT GGAAGTATTC TAATACAAGA TTTGAATAAA GTTTATCCTT 120
 AAATAAA 127

SEQ ID NO:6000
 SEQUENCE LENGTH:195
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07122
 SEQUENCE DESCRIPTION:
 GATCCTGGAG CTGGAGCATG AGTGTCTGAC AATCAGAAGC ATGATGTCCA ATGTCNNGAT 60
 GGCCAGAATG AATGTAATAG TTCAGACCAA TGCCTGNCCA CTGCTCCTTT ATGACTGCAC 120
 TTCTAGCCAG TAGCTCTGCA CAAGTNAGCT CTGTAGAAGT AGGANCTTGG GCTTAAGTCN 180

TGNGCTNTNT CTCCTN

195

SEQ ID NO:6001

SEQUENCE LENGTH:156

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07123

SEQUENCE DESCRIPTION:

GATCCCAGCA TGGGGTGAGC ATGAAAGAGT GGCAAACAGA GTGGCATAAG ACAGATAAAA 60

TACAAAAGGC AATTACAAA GGACCAGGAC CGCAGAGGCA GAGATAAACC AGTGGGCTCA 120

GACTTCTGAG CGTCTCAGAN AAANNNAAN AAANN 156

SEQ ID NO:6002

SEQUENCE LENGTH:177

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07124

SEQUENCE DESCRIPTION:

GATCTGTCTA GCTTATATAA GATGAACTG AATTGGAAAA ATAGCTCCAT TTTTGGGTGC 60

TTGGGAAGCA CAGTGACCAA AAAAGTTGTA TGGCTGCTTA TTCATTAGTC TTCCTACTG 120

ATGTCAAATC CATGGTACCT AGAGTTAAAT AAAATTCCAA TGCTCTTACT CTTTAA 177

SEQ ID NO:6003

SEQUENCE LENGTH:305

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07125

SEQUENCE DESCRIPTION:

GATCCAGTTG GGAATAAGTG ACATCGTATC GGTTCCTGTT CAGATGACAT GGGGAAGATG 60

ATGGTTCAGC CACTGGTACT ACGAGAATGT TTGTATTACC CACATTGAA TTNATTGCT 120

ATGATTTTNA TGAAGATTAA AAATATATAC ACAGTTCCTG GTATGTTGAG GTTGTCTTTA 180

TTATTCTTAC TCAGAAAGGA AAATTTGTAA ATATGTTTGT GTGGCTCAAA CTGATACTAT 240

TCTTACANCT GGANCATTGA AAATNCAGAG GGCTGTATTT GGNTATTAGN GAGGNCTCCG 300

AATGN 305

SEQ ID NO:6004

SEQUENCE LENGTH:307

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07126

SEQUENCE DESCRIPTION:

GATCCTCAGG CTGGTATACG GCGCAATGTT GCATCAGCTN TGGGCAACTT GGGNCCTGAA 60

GGTTTGGGAG AGGAGCTGTT ACAGTCCGAA GTACCCAGC GGCTCCTAGA AATGGCATNT 120

GGAGACCTC AGCCAAATGT GAAGNAGGCT GCCCTCATTG CCCTCCGGAG CCTGCAACAG 180

GAGCCTGNCA TCCATCAGGT ACTGGTGTNC CTGGGTGCCA GTGAGAACT ATCCTTGCTC 240

TCTNTGGGGG GNTCAGTCAC TGCCACACAG CAGTNCCTAGG CCTTGNCCTGT GCCAAAACAA 300
TTGNANN 307

5

SEQ ID NO:6005
SEQUENCE LENGTH:215
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07127

10

SEQUENCE DESCRIPTION:
GATCTCTCTC CGGCCCCCTA GAAGCCCTCT CTCCTACTGCA GCCCTGGTGC TCTGGGGAAG 60
GAGGGGCATT GACAGGTGGT TTGACTGTTC ACCCAGCAGC CCCGCTTCCC CACTGGTTTC 120
TCTCCTGGCT GCCGGCGGNG GTAGGCTGGG AAAGCTTCCC CNTCACCTAG GNCGGGCCAG 180
CACCGGCCNG GGCNNAAGA GGTCCNCTNN ATCCN 215

15

SEQ ID NO:6006
SEQUENCE LENGTH:273
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07128

20

SEQUENCE DESCRIPTION:
GATCCGAGGG GAAATNTTTA GAGCCCTCAG GAGGAGGAAG AGACCGAGTT TTAGGAAAAA 60
CATCAAAGCT GGATAGGTTG GGCAGAAGAG CTGGGGATAG CATTAGAGA GGCTGAGAGT 120
CCTGGGTTCT GGNTTATCAC GTGTGAGNGA AACNGGAGGT TGCTANTTGT AGGTGGGCGT 180
CAGGNCNGA GTGNTGCTTC CAGANGTTTC TGCAAGTGGG CCGGGTCTAA GNTAGGGCAT 240
GTTACGCCAG ANGTTNAGG GNCCTAGGT AGN 273

25

SEQ ID NO:6007
SEQUENCE LENGTH:250
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07129

30

SEQUENCE DESCRIPTION:
GATCACAGGG AAAAACCAGC CGAGCTCAGG AAGCCTAATC CAGGTGGTAA CCACAGAAGG 60
AAGGACGGAA CTCACCCAG CATATTTTA GGCCTCATCT CAGTGCCTAT NAGGGGCCCTG 120
CCAGNAAGGT CACTAACCTG GTCTCAGTGT GGCCTTGTC AGCCTTGTTT TTNCTGTAA 180
CCCCGNTTTG TGGTACGAGN TATTGNNTCC TATATTACGG ANACAGANCC NTGNTTTCGG 240
NTTTTGCATN 250

40

SEQ ID NO:6008
SEQUENCE LENGTH:106
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07130

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SEQUENCE DESCRIPTION:
GATCCCAGTN AGTCATGAGC CTCAACCCCC TCCAGCCCAC TGGGGCTCTN ACCTCCACAT 60

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GTGGGTAGAA GCTTNCCTGC CCCCTTTNCC TCCAGGAAGC CCTNAN

106

SEQ ID NO:6009

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07131

SEQUENCE DESCRIPTION:

GATCGCCTGA GCCCATGAGG CCAAGGCTGC AGTGAGCCAT GGTACGCCA CTGNATTCCA 60

GCCTGAGTGA CAGAGCAAGA CCTGTGTGAA AACAACAACA ACANCAAA 108

SEQ ID NO:6010

SEQUENCE LENGTH:335

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07132

SEQUENCE DESCRIPTION:

GATCTAAAAC TATTTTCTG TATAAATATT ATTGCGGAA AGTTTGTTTA TATTNAGAAG 60

TCTGACTATG ATGAATAAAT CTTAAATGCT TTGTTTAATT GAAAAACAAA AATCACCAAT 120

ATCCAAGACA TGAAGATATC AGTTCAACAA ATACTGTAGT TANGNACTA NCTCTCCACT 180

TNTATGGGAA CTACATTCA CTCTTGTTT TCAGGATATA GCAGCACTC ACCGAGATAT 240

TCTTTAGCC ATANCACTGG TAACATTCT NCTNAATCTN TCTGTAGCAC TTANAGGANT 300

TCCCTCATTG GNTNCCTTTC AGTGTTNCG GNGN 335

SEQ ID NO:6011

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07133

SEQUENCE DESCRIPTION:

GATCCAAAGT AGCTGGGATT ACAGNCATGA TACCACANCA CAGTCATTG AATNTATCAT 60

TACTTAGTAC TCNTATTTT TTCCCTGCTG CTCTTTATGC ANTGAAGTCC TN 112

SEQ ID NO:6012

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07134

SEQUENCE DESCRIPTION:

GATCTCCTTT TGATTAATTT ATAGAGTTTT TGATTATAIG TCTTTGTATG ANCTTTTTAG 60

TTATTGCTCA AATATCATAT TTNATATTTA TAACACAGGC TACTGATGTT GACATTTTAA 120

CAGTTCAAGT GAAGTGAGA AATCTTACCC ATTATCCCTC CCTATTAATN NNNTANTGGT 180

CTTAAATGTC TTTCCCTACA TATATTTNTA ACANGTATAT GAGATAGCCT TACAGTTTGG 240

NCTTTAATA TCAATCATGC ATTAGGNAC TCAAGNGGN 279

SEQ ID NO:6013

SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07135

SEQUENCE DESCRIPTION:

GATCTGGGAC TGGCAGGTTA TTAATCGAGA TACACTTGTT AGGAGGGACA GGGTTCCCCT 60
AAGGCACTTT TAAAGATACT CTGTAAGAAC CATTAACAAT AAATTACTG TCAATCAAA 119

SEQ ID NO:6014

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07136

SEQUENCE DESCRIPTION:

GATCGAGGTT GTTTGCAACG ACCGTCTGGG GAAGAAGGTC CGCGTTAAAT GCAACACGGA 60
TGATACCATC GGGGACCTTA AGAAGCTGAT TGCAGCCCAA ACTGGTACCC GTTGAACAA 120
GATTGTCTTG AAGAAGTGGT ACACGATTTT TGGGGACCAC GTGTCTCTGG GGGACTATGA 180
AATCCACGAT GGGATGAACC TGGAGCTTTA TTATCAATAG ATGAGAATGC TCATCTTCCT 240
GNTGNGGGNT TTNCTNTTCG NTNCTGGATN CNCCACACTG GGGNTAGATG CTTGNTTGTA 300
AANNCTTNC CTTTN 315

SEQ ID NO:6015

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07137

SEQUENCE DESCRIPTION:

GATCCTAAGT AGAACCAGGT AATTGTCTCT TTTTCTAATA AGGAATTGG GTAATTTTNA 60
ATTTTNGTT TTTTAAAAA TAACCTAGAC TATGCAAAAC ATCAAAGTGA ATTTCCCATG 120
ANTGTTTTTA ATATTCTCAT CTCAACATTG TGATATATGC TACTAAAANC CTTTNCATAT 180
ACATCTNACC TCATTTCAGG TGANTNATTN TAATCTNN 218

SEQ ID NO:6016

SEQUENCE LENGTH:53

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07138

SEQUENCE DESCRIPTION:

GATCAGAGCA GAACTAAATN AAATTAGAAT AAAGTTAAAC AATTAAAAAG AAA 53

SEQ ID NO:6017

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07139

SEQUENCE DESCRIPTION:

GATCGACTTA TACCTATGCT AAAGTTAACG GTCTGAGAAG GTAGATTAGT GGTTCCTAG 60
 GGCTAGGGAG TGGGTTTGGG GGTGGGGAAT AGAAAGTGAC TGGTCATGGT TATAGGCTTT 120
 TTTGTAGCAC CATAAAGATA GTTTAAAAAT AGATTGTGGT GGTGATTGCA CCACCCATG 180
 ATTTGCATGG TATGTGANTT ATATCTTAAT AAAGCTGTTT AANANGTCAA A 231

SEQ ID NO:6018

SEQUENCE LENGTH:380

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07140

SEQUENCE DESCRIPTION:

GATCCGCTCC TAACCTGCGA CCGCAGCTGA CCTTCTCCTG CCACTAGCCC GNCCCTGNCC 60
 TTAACANACG GGATGAAGTT TCCTTTTCTG TGC GCGGCGC TGTTCCATA GGCAGAGCGG 120
 GTGTNAGACT GAGGATTTCG CTTCCCTCC AAGACGCTGG GGGTCTTGGC TGCTGCCTTA 180
 CTNCCNNGG GTCCTGCTG ACTTCGGAGG GCGGATGCA GAGCCAGGG NCCCCACCGG 240
 AAGATGTGTA CAGCTGGTCT TTA CTCCATC GGCAGGGCCC GAGCCAGGG ACCAGTGACT 300
 TNGGCCTGGA CCTNCCGTC TAACTGCAAG CATCTTCCCC AGGGCAAAGG NTTNTGGGG 360
 GAACGNGAGG TTTNATNTTN 380

SEQ ID NO:6019

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07141

SEQUENCE DESCRIPTION:

GATCTATTTT GTGTGTTTG AACTTAGGT GCAATNTCCC CTGGAAAAAG CTAAAGAAAT 60
 GTATATGTTT AATNACATTT TAAAAATAAA TATTATATAT ATGTAAA 107

SEQ ID NO:6020

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07142

SEQUENCE DESCRIPTION:

GATCGATTTG ATAAATTAACAAAGTGCT TTTAATGGAA AAAAAAAGA AA 52

SEQ ID NO:6021

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07143

SEQUENCE DESCRIPTION:

GATCCACTGT AATAGTCCAG TTTGGGGTGC AGACAAGTGT GAAGAACTTC TGGAAAAGAC 60

AGTGAAAAAC TGCTTGGCCC TGGCTGTTGA TAAGAAGCTG AAATCCATTG CATTTCATC 120
 CATCGGCAGC GGCAGGAACG GTTTTCCAAA GCAGACAGCA GCTCAGCTGA TTCTGAAGGC 180
 CATCTCCAGT TACTTCGTGT CTACAATGTC CTCTTCNTC AAAACGGTGT ACTTCGTGCT 240
 TTTNGACAGC GAGAGTATAG GCATCTNTGT GCAGGANATG GCCAAGCTGN GCGCCGGNNN 300
 NGGCTNGNGC AATGNCAGGA CCNGNTTGCA CCATGGTACC GNACCTTNAG TTTNN 355

SEQ ID NO:6022

SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07144

SEQUENCE DESCRIPTION:

GATCTTGGAG CTNCTGGAGA AGCAGGNTG CNAGCTGCTC AACCGNTTC AGGACTAGCC 60
 CCCGCAGGCT CGTGC GCCAC CCCGTCCTGG TGAATAAACG CACTCCCTGT GCCTCAGACA 120
 AA 122

SEQ ID NO:6023

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07145

SEQUENCE DESCRIPTION:

GATCCGATAA TGTACCATGT GCCTGCTGGT TTGGCCTGTG CTGTTTCTGC TTTTTGCCCC 60
 TNACTTCCTG TGCTAGAGAA AGCCTTATTG GTGTTGGTGG TGGTGATGGG AGGGAAAAGG 120
 GTGGTCCTTT GGGACTCTTG ATAAAAATNT TATCATTGA AA 162

SEQ ID NO:6024

SEQUENCE LENGTH:179

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07146

SEQUENCE DESCRIPTION:

GATCCAGGCC AATGCATGGC TATTGCTGTA AATCTTGATG TTTATTTCTG CCTTGTAAG 60
 TTCTATCAGC GCCTACCTGG AATTTAAAT TCAGTAGACA AATTAATTGG TCCTCTGCAC 120
 AACTTTTTTA ATAAGTAGAT TATTTTNCAA NGGGNTTNGA NCAANTTTNA TTGANTCTN 179

SEQ ID NO:6025

SEQUENCE LENGTH:403

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07147

SEQUENCE DESCRIPTION:

GATCAGAGTG GCTGGAGCAG AGTGAATNAG GAGGGAAGCT GAGTAGCAGG TATCTGAGAA 60
 GCAATGCAGC CCGCAGCTTA ACTTCAACAT GCTTTTAAAC TTTTNCCTA TTCTNTTGAG 120
 TTTCAAGATA TAACCTTGAG GAAACTCAAA ATCCTTTCTC CTTAGCCTTA AAATAGACTC 180

5 CACGTCCCTC CCCTTTNTCA CCAGATATGC TCCCTTTNCA TTTATCTAAC TGTATGCTAC 240
 TATTTAATTG TGTGATGTCT TAGANGTTTC AGTGGCTAAT CTTGAGACAG ACCAAGNCTG 300
 GAGACCCAGC TGGCAANCCT TCCANNATTT ANCTTCAAAA TTGGCTAATT NANCAACCNG 360
 GCCCTTNGTT NNAAATTATG GTNATTCCGG GGGNCCCGN TGN 403

10 SEQ ID NO:6026
 SEQUENCE LENGTH:198
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07150
 SEQUENCE DESCRIPTION:
 15 GATCTTGCTG CAGCCACAGT GCAGTCCACA TTAAGTCTAC AGACCAAACC ATTTGTATCT 60
 GGCATCACTT ACTAACACAC GACATGCAGA AAAGCCGCAT GTNGTGTGTT AGTATACANG 120
 AAGGAATAGA AAAGTATAC TGTTTTAAAT ANTCTGTAAT TTCAATTTT TTNTTTTNN 180
 GCTGAANTGG GTCNTNTN 198

20 SEQ ID NO:6027
 SEQUENCE LENGTH:190
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07151
 25 SEQUENCE DESCRIPTION:
 GATCATAACT CTTTNTTGAA CTAGAGTATT TTTGCAGCAT TCCTTGTCAT CAGAAACATG 60
 GTTAAAGTTT AAAAGTAGAA GCAGCAGAAA ACTAGCTTGT AAAATTTATC CAAGTAGAGT 120
 GCAGGCTAGG CTGTCTTGGG GAAATAAACA TTAAANCTTA AAGCAATGTT TTACATGGAA 180
 ANNNNANNNN 190

30 SEQ ID NO:6028
 SEQUENCE LENGTH:217
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07152
 SEQUENCE DESCRIPTION:
 GATCTTGCTG CATNTTGAC CTTGGACCTG CTTGGTTAAG GAGGGAGTGG GCCAAACCAG 60
 AGTGCCAGGA GCTAATGGAG CCAGGCCCTGA CTCCTAGGAG TGGTCCAAAG GCCTTCAGCC 120
 TAGATGGTGC AAAGNTGGGG CCAGCCTGTT TTCACCGGNA CCNGNGCCTG TGACACCAAG 180
 ACCACCCCA ATCCCAGNNT TNACACAGTA TTNTCCN 217

45 SEQ ID NO:6029
 SEQUENCE LENGTH:136
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07153
 SEQUENCE DESCRIPTION:
 50 GATCGGAGCC TACTCCCTC CGCTCAGCCT NGAGGAGCTG AGNCCCTACT TCAGGGACCG 60

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TGGGTGGCCT CTGCCCCGGG CCCTCTAGAC GTGCACCAGA AATAAAGGCG AAGACCCAGC 120
 CCCTCGGCGG CTCAAA 136

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SEQ ID NO:6030
 SEQUENCE LENGTH:278
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07154

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SEQUENCE DESCRIPTION:
 GATCCAAACC CAAGTCTTGA GCAATGTTTT TCTCAAAAAG CTGCTATCCA ATNATATAGG 60
 AAAATACATT GTGTTTTCTT AAACACACTT TTCTTTTAA ATGTGCTTCA TTGTTTGATT 120
 TGGTCCTGCC TAAATTCAC AGGCTAGGNC AATGAAGGCT GAATCANNGN CANTTCATCC 180
 ACCAATATCA TGTGTAGATA TTATGTATAG AAAGTANAGT AANTTATGGC TCTAACTTCT 240
 GTGTTGCTGT NTATCCTTGN TTTTNTCGG GGGTGNTN 278

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SEQ ID NO:6031
 SEQUENCE LENGTH:65
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07156

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SEQUENCE DESCRIPTION:
 GATCAGTTGA TGTACACTTG TATTATTAAA GCACTCAATA AATCACTGTG GCTGATAACT 60
 GCAAA 65

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SEQ ID NO:6032
 SEQUENCE LENGTH:161
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07157

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SEQUENCE DESCRIPTION:
 GATCCACATG GCACGGTGAC TGTAGTTAAT GCATTTTATA TGTCAAAATT CCTTANATAG 60
 TAGATTTTAA ATAATCTCAC CACAAAAAAG TAGATGTGTT GGTGATGGAT ATCTTANTTN 120
 GCTTAANGTA NTTGTNTCAC CAATGTATAC ATNTATCAGN N 161

40

SEQ ID NO:6033
 SEQUENCE LENGTH:130
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07158

45

SEQUENCE DESCRIPTION:
 GATCATCTTT ACAGTTCCTC GGGAAATNT GAATGTCCTG CGTTTTGTTT TCTTTACTGT 60
 ATGAAAACAG GAAAATAAAA GAGAAATTTA GAAAATACAG CTCATTACAA TAAANNTNTT 120
 GGNTTTCAAA 130

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SEQ ID NO:6034

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SEQUENCE LENGTH:165

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07160

SEQUENCE DESCRIPTION:

GATCTGGCCC AAGCTGGGCT CCCTNNAAGC CAAGAGAGCC TCTNATNGAC CCCGCCTGCC 60
CGAATGAAAT CCGAACAGTT GGGGCTGTTC ATGGCAAGTG GGGCTGGTTT TTCATNTCCA 120
TTGGTTATTT AAAGTTTCCN TTAATAATAA CGATTTTAAG TTAAT 165

SEQ ID NO:6035

SEQUENCE LENGTH:77

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07161

SEQUENCE DESCRIPTION:

GATCTGGGGT CTGTTTGTGTT CATTACTTTG TTCACTCCTT CTTCCATTTA TTCATTCAAT 60
AAACATTAT TGGGAAA 77

SEQ ID NO:6036

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07162

SEQUENCE DESCRIPTION:

GATCCGGCTT GCCCAGAAAG AGAAGACAGC CATGGAAGTG GAAGCCCCCTT CAAAGCCAGC 60
CAGGACTAGT GAACCACAGC TCAAAAGGCA AAAGAAGACA AAAGCCCCC AGGATGTAGA 120
AATGAAGGAC CTTGAAGATG AGAGCTAAAC CTCTTCCACT AGAAGATTCT CAACTGGAGC 180
CAGCCTTCNG GCTCAGTGGT TGTTCAGAG GACTTTGACA AAAGCAAGGC CCCTTTTCAC 240
TCTCCAGATT TCCTCCTACC TAATGGCCTA CTGACCTCCC CTTAGAGGGA TGTNTTTGGG 300
NGGGAAGNTN 310

SEQ ID NO:6037

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07163

SEQUENCE DESCRIPTION:

GATCCAGAAC ACTTCAAGAA CTCGTCAAAC AGCTCGATAA GCCTTTTGA CTGTNTACAT 60
CTGTACCGGG AATAACATT CTAGGCTGAA ATTTCCACAA AGANTAGAAC CTGTACCCAG 120
TTCTTCAGGC TGATTTCCTT GACCTCTTGG GCATTTGTAT TTGTAGTAAA GTATTGCAGA 180
GATTCCTAAG TATTTTNNNA GCAGCCATNA AAAATTGGNC TTTGTNTNG TTGATTCATN 240
NGGAGGGCAA GTTGGGGANT AGACTTCAGT NGANCTCGGT ATGGNTGN 288

SEQ ID NO:6038

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07164

SEQUENCE DESCRIPTION:

GATCACGCCA CTGCACTCCA GCCTGGGCAC CAGAGTGAGA CACTGTTTAA A 51

SEQ ID NO:6039

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07165

SEQUENCE DESCRIPTION:

GATCTGGGCA GGGAAACATCA CATACCAGGG CTGTCTGTCTG GGGGGGTGGA GGGCTGGGGG 60
AGGGATAGCA TTAGGGGAAA TACCTAATGT AAATNACAAG TTGATGGGTG CAGCAAACCA 120
ACATGGCACA TGTATACCTA TGTAACAAAT CTGCATGTTG TGCACGTGTA CCCTAGAACT 180
TAAAGTATAA TTAAA 195

SEQ ID NO:6040

SEQUENCE LENGTH:75

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07166

SEQUENCE DESCRIPTION:

GATCAGGCC CACCTTGTGT CTACCCCAT CCCNGCTGTG AACGTGACAN TGAATAAAGT 60
CGGGGAAACG CGAAA 75

SEQ ID NO:6041

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07167

SEQUENCE DESCRIPTION:

GATCTGAATT GAGGAACTTG TAGTTTTTGC TCTCCCACTT CTTGGAAACC CCTATCTACT 60
TTCCTATGTA TTTGACTACT TGAGGTAGCT TATACAAGTA GAATCATACA AATGTATTGT 120
TTTGTGACTA GCTTACTTCA NTTACAATAA GTCCTCAAGT TCTNCCATGT TGCTGTGTGT 180
GTCAAAATTN CCTTCCTNGC TAAGGCTGAA TAATATTNCA TNGTATATAT ATGNCNTTNA 240
TCCAGTCATT CATCAATGAN TACNTGTTTT TNGTGTGTGG TGTGGGAANC CTNCTGGGGA 300
CATGGTNATA TTTTN 315

SEQ ID NO:6042

SEQUENCE LENGTH:79

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07169

SEQUENCE DESCRIPTION:

GATCTAAGCT GATTTAAATC TAAAAACTGG ATAAGAAGCT GTGGCTTGTA ATTAATAATA 60
GACCTTTATT CACTAGAAA 79

5 SEQ ID NO:6043
SEQUENCE LENGTH:189
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS07170
SEQUENCE DESCRIPTION:
GATCAGGTAT TTAAAGGACA TCTGACAGTG CCTGGCACGG GATAGGTGCT CCATAAATGC 60
CTGTAGCTAT AATTATTACT GTNCCACTAG CTGTTTACTT AAGTAACATT GAATTTCCAC 120
AGANTGCATT TCGAATCAGG TGGACTATGA TTATACTGAT TNTAAAAATA GNGAGCTGCA 180
15 TCTGTAAAA 189

SEQ ID NO:6044
SEQUENCE LENGTH:151
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS07171
SEQUENCE DESCRIPTION:
GATCTGGAGT GGAAGGGGAA TTCATTGTGT CATGTCTAT CCTTTGTAT TGATTGAATT 60
25 TTTNATATAT ATATGTAAAT TTNCACAATA AAATTTTNN CCAAAATAAA ATAAACAAAA 120
GGGGCTTTTT GCAACCCAAT TCCTATCTAA A 151

SEQ ID NO:6045
SEQUENCE LENGTH:178
30 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07173
SEQUENCE DESCRIPTION:
35 GATCATAGCA CTNTATCATC TTTAAAGTTA ATAATAGATT ACTTGTAACA CAGGCTCACT 60
ATGNGAGAAT TCATCAAGCT GTATGTACAT TTATTGTGCT CTCATTGTA TGTATAANTC 120
AATAAATTGA AACAGTAAAC GAAAAGGTAA TTNTAGANAN CCTACAGTGA TNCTTGNN 178

SEQ ID NO:6046
40 SEQUENCE LENGTH:380
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07174
45 SEQUENCE DESCRIPTION:
GATCCGTCAC AGACTAAGGA GATGGCAGGC ATTGACAGCT TCACTCCATG AAGGCCATCT 60
CTGTTTCTNT CCTCCGCTTA ACCAAGCTGT TGTGGTTTT NAGCATAGTG TTGTATGTTT 120
CATTGCTAGC TGTCTGCTG TTTAACACAG TGTGTATTT TTTNCTAAA TGTACATAAT 180
TAGAAAAGAA GATAACAATA GGANGCTATG TGTATCTCCT GTGTAAAGNA GTGGCTTCAC 240
50 TGGAAAAATG GTGTGGCTAG CATTTCCCTT TGAGTCATGA TGACAGATGG TGTGAAAACC 300

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ATCTAAGTTT GCTTTTGACC ATCACCTCCC AGTAGCAATT NTGCTTTCAT AATCCNTTTT 360
AGCANTCCAG GCCTCTTTGN 380

5 SEQ ID NO:6047
SEQUENCE LENGTH:72
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS07175
SEQUENCE DESCRIPTION:
GATCGTAATG TAAAATTCTT TTACCATGTC AAGAAATTAT TAAAAATACA GGTACTTTGA 60
CCTCTTTCTA AA 72

15 SEQ ID NO:6048
SEQUENCE LENGTH:226
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
20 CLONE:HUMGS07178
SEQUENCE DESCRIPTION:
GATCCTGAAA AGATAGGGCT ATTGTCCCCT GCCTCCTTGG TCACTGCCTC TNGCTGCACG 60
GNCTCCTNAG CCCACCCCT TGGGGCACAA CCTGCCACTG CCACAGTAGC TCAACCAAGC 120
AGTTGTGCTG AGAATGGCAC CTGGNGAGAG CCTTCTGTGT GCCAGNTTTT GTTCTGAGTG 180
25 CTGTACATGT ATTANNTCCT NTACTGCTNG CCACATTGTA CCNNTN 228

SEQ ID NO:6049
SEQUENCE LENGTH:225
SEQUENCE TYPE:nucleic acid
30 TOPOLOGY:linear
CLONE:HUMGS07179
SEQUENCE DESCRIPTION:
GATCCCCGTA CCACAGTGCC AGCCATGCC TTCCCCTGGG CTACCATTGT CCCTTTCCTC 60
35 ACCCAGTTGG TAGAGGAGTC AGGAGGTGGG AGGCCGTGGG CTTTGGTTTT ATAATGTAAC 120
CACTGTGGGG GTGGGGGAGG ATGGTGAACC ATGTATTNA GTGAAATATT TAATATATT 180
AANTATCANT AAANTCAAAC TCTTTGTAAG ANANANNAG NANGN 225

40 SEQ ID NO:6050
SEQUENCE LENGTH:332
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS07180
45 SEQUENCE DESCRIPTION:
GATCATCCTG GGCAGCAAAG TCATACACTC TTGAGGGAAG AGAGAGACCT TCTCATATTG 60
TTTTATATTG TTTTATACTC AGTACCTGTT TTAAGAAAAA AACAAGGAAG TGAAATCAA 120
GACAGGCAGC CCGGCACCAG GCCTGANACC AGCCCTGGGC CTGCTGGCC TAAACCTAGT 180
AGTTAAATTT CAACTTACGA CTTAGANCTT GATGTTATCC GTAGATTCCA AGCNTTGTAT 240
50 AAAANATTTG TGANACTCCC TGTGTGTTT TGTGCCAGTG CATGNNACCC CTGTACATA 300

55

TCCCCTAGAT TGCTCANTCA NTCNCGGTTT GN

332

SEQ ID NO:6051

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07181

SEQUENCE DESCRIPTION:

GATCACAGGC CTTTGGAGCA CTTTACTCT CTGAGAAGAA CTGGAGCTAG AGATGTA AAA 60
 TGGACAGTCT TGATGGGGTT GAGAACCTTC TGGGGAGCCA GATGACCCTC TCTTTGCACA 120
 ATAGATAAAA GTCTTTATAT GANTATATAT AANTTTNTTT NTTTTCCCT TCCTGTGGGA 180
 TTTCTGGAGA ATGAGAATTA TCCAAATNCT CAGTCTACCT GNGATAGTAA ATNCATGGCT 240
 TATGCTTCTG GTCCTTAAA 259

SEQ ID NO:6052

SEQUENCE LENGTH:92

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07182

SEQUENCE DESCRIPTION:

GATCGNACCA CTGCACTCCA GCCTGGAAGA CCAAACGAGA CTCTGTATCA AAAATAATA 60
 ATAATAATA AAGTTTACT GGAAAAAGA AA 92

SEQ ID NO:6053

SEQUENCE LENGTH:92

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07183

SEQUENCE DESCRIPTION:

GATCAGCTAC AATGCCCTGT GTTAAATTNT TAAAAAGTTT CCCTTTTCTT TTTTGCCAAT 60
 AAAGTTGTAA ATAAAGACCA TCATACATTA AA 92

SEQ ID NO:6054

SEQUENCE LENGTH:95

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07185

SEQUENCE DESCRIPTION:

GATCCCTTCC CGCCACACGA TGCTCCGTTT TCTTCCGTTG TGAATNCCGC GTCCTGTCCT 60
 GGTGACAGGA GAACAATNTT GGTGAACGTC GCAAA 95

SEQ ID NO:6055

SEQUENCE LENGTH:155

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07186

SEQUENCE DESCRIPTION:

5 GATCTCCTTC TCACTGCATT CACTCGGTTT CCATAGCCCA AGTCATATTG TNTCTCTCCT 60
 GGACAGTAAT AACCTTTTNT TGGGCTCCCT GCTTCCAACC TTGCCTTCTG TAGTGTACTT 120
 TCCAAATAGA AGCCAGAGTG ATACCTTATA TTAAT 155

SEQ ID NO:6056

SEQUENCE LENGTH:138

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07187

SEQUENCE DESCRIPTION:

15 GATCAGGAGG CCCACTTGGA TTTATAGTAT AGCCCTTCCT CCACTCCAC CAGACTTGCT 60
 CATTTCCGA GTTTTAACT AGACTACCT CTATTGAGTT TAATTTNTC CTCTAGGATT 120
 TATTCTGTT GTCCTAAA 138

SEQ ID NO:6057

20 SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07188

SEQUENCE DESCRIPTION:

25 GATCTGAAAA CCAAGTGGTG ACCTAGGGAG GGAACAAGCN CTGTGCAGCA TTGATGAAAC 60
 TTAAGATG AAGTCCTGGT CCGGGCACGG TGGCTCACTT CTNTAATTCC AACACTTTGG 120
 GAGGCCGAGG CAGGAAGATG GCTTCANCCC ACGACAAA 158

SEQ ID NO:6058

30 SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07192

SEQUENCE DESCRIPTION:

35 GATCTNTGGC CCACTCCGCA TAAATCAGGT GCATAATGTA GCTGCCCGGG CTCTATACT 60
 GCAACATTG CAAGGCAATT AGCTTGAAAA CTGAATTGAT GTACATTGAT TTTTAAATA 120
 AAGTTATTGT AATATATTCA CTCGTTATAA A 151

SEQ ID NO:6059

SEQUENCE LENGTH:362

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07193

SEQUENCE DESCRIPTION:

45 GATCTATACC CTAAGCAGAT AGCAAAGAAG ATAATGGAGG AGCAATTGGT CATGGCCTTG 60
 GTTCCCTCA AAACAACGCT GCAGATTNT CTGCACAAAC ATCTCCACTT TTGGGGGAAA 120
 50 GGTGGGTNGA TTCCAGTTCC CTGGACTACC TTCAGGAGGC ACGAGAGCTG GGAGAAGAGG 180

CAAAGCTACA GGTTTACTTG GGAGCCAGCT GAGAAGAGAG CAGACTCACA GGTGCTGGTN 240
 CTGGGTTTNN GCCAGGCTCC TCCGAGCACC TCATGCATGT CCCAGCCCCT GGGCCCTAGC 300
 CCTTTCNNGN CCTNCNGTCT NCAGTGCCAG NACGGAANTN CCTGNACCA NNGGNTNTTN 360
 GN 362

SEQ ID NO:6060
 SEQUENCE LENGTH:149
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07194
 SEQUENCE DESCRIPTION:
 GATCCATCAT NATGTAAAN TTCACAATAT GGTCAAATG TAACANTGCA GAATTGAATA 60
 TGGAGGCATG CATAACCTTC CTCTTAGAAA ATGGCAGGTN TTGTAATTC AAATTTTNT 120
 GCAATTAGAT TAANTCATAA TGCAACAAA 149

SEQ ID NO:6061
 SEQUENCE LENGTH:184
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07195
 SEQUENCE DESCRIPTION:
 GATCTTGCTT TAACTTCAA CACTTAGAAA ATCTACAAAC ATTCAGACCT GTCTGGGTTG 60
 GTATTGCCAC CCATGACATT TAACATGTTG TGATGCTTGA AAACACAGGA GTAGAGAAAN 120
 TCGATGANGA TTGTATTTN NCACCTTAAC TCCACATTGC TTTATTGGNT AATTNATANN 180
 CTNN 184

SEQ ID NO:6062
 SEQUENCE LENGTH:196
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07196
 SEQUENCE DESCRIPTION:
 GATCAGTAGT CTCTATTCAA ACTTTNAAAA TGTCGTGGTA TTGTAACAAT ATATTTAATG 60
 AAAGANGGTT ACAGACTCCC CTGAAGAACC AGCTTTCCTA CGCTTTTNTAT TTNCTAACT 120
 TGTCTAACCT GATTTNAAAA TGAATGCANT TCCAGACTAA AAACATGCTT CANCCCTGTT 180
 TCANGACATT NTGCTN 196

SEQ ID NO:6063
 SEQUENCE LENGTH:295
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07199
 SEQUENCE DESCRIPTION:
 GATCCAACT CTACATCCAG AGATTATGAA AAATCTTAT AGAATTTTGT AACAAGTATT 60
 TACATGTTGG GTGAAAGANA TTTCATAGTC GTTGGAGTGC CATGAAATTA ATACTTGCAA 120

TTCAGATTGC GGTAGTTTAC ACTTTTCCTG TATGTTTCAA ATCAGGTGTG TACCATTGT 180
 NCTGAGANCA CCACAGANTG ATTTATCCAA AGTCCATTGA TTTTNATACG TGTTTTGGTT 240
 TGTNACCAAN TTATNGTNAT TCNTNGCACA TTTTGGNAA TTNATTGTAT AGGNN 295

SEQ ID NO:6064

SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07200

SEQUENCE DESCRIPTION:

GATCTTCGCT GATTNNNTCC ATCAATNACC CGGAGCATCC ACTNACGCTA GAGGAGTTGA 60
 ACGTAGTAGA GCAGGTGCGG GTTCAGGTTA GCGACCCCGA GAGTACAGTG GCTGTGGCTT 120
 TCACACCAAC CATTCCGCAC TGCAGCATGG CCACCCTTAT TGGTCTGTCC ATCAAGGTCA 180
 AGCTTCTGCG CTCCTTCCT CAGCGTTNNN NNGATGGACG TGCACATTAC TCCGGGGACC 240
 CATGCCTCAG AGCATGCAGT GAACAAGCAN CTTGCAGNT AAGGNGCGGG TGGCAGCTGC 300
 CCTNGNGAGC AN 312

SEQ ID NO:6065

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07201

SEQUENCE DESCRIPTION:

GATCAGTGCT CTTCAAGGTG TCAAGATTAT CAAAGACATA AAAGANTGNN TGANCTGCCA 60
 TAGATTGGNG GAGACAATGC AATGTGAAAT CCTGANTTTG ACCCTGAN 108

SEQ ID NO:6066

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07202

SEQUENCE DESCRIPTION:

GATCTTTAGT CCGAGTATGN GAAATTCAAG CAACTTTGCG AGANAAAGGA ATACTATTTT 60
 TNAGNCAACA AATTAAGGAA CTTGAAAAGC TAAAAANTCA GAN 103

SEQ ID NO:6067

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07204

SEQUENCE DESCRIPTION:

GATCANNGAA ACTAAACATT ACACCTTCTG GNCITTNATT TATGAAGTGG CACAGAATCT 60
 AACTTTNCAC TGAATATCTT TCCATTACCA TCTCCTCTGC CTTAGTCACA ATGGCAACAG 120
 TACAGNN 127

SEQ ID NO:6068

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07206

SEQUENCE DESCRIPTION:

GATCTCCCAA GNAAGCACAA ATAGTTTTTT TCGCTAACTT AGTTATGAGT GAAGCCTCTG 60
TNCACCTATA ACTNGCCAGT TTCATTGGTG GAATAAGTCC CCTTACTCAT GATTCANCAA 120
TATNCCTATA TTANAN 136

SEQ ID NO:6069

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07209

SEQUENCE DESCRIPTION:

GATCAGAGAA GGTITTTGTTT GTCCTTTTAA TCTTTACTTC TTTGAATTGT GAAAGTAATA 60
CTACATATTC ATAATAAATT CAAATAATAC AGAAGTATAT TATGTAAA 108

SEQ ID NO:6070

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07210

SEQUENCE DESCRIPTION:

GATCCGTGCT GTCCAATCCG GTAGCCACAC ACGGCTCTCG GGCACCGCAC AGTGGCTAGT 60
CTGAAACCTG ACATGCTCTA AGTGTAATAAT ACATGGTGGA TTTTNAAGAC TTGAACCAAA 120

SEQ ID NO:6071

SEQUENCE LENGTH:174

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07211

SEQUENCE DESCRIPTION:

GATCCTGGCC CTCCACCTNC CTCCAGGCCA CGAAATGGGA ATNCCAGCAC TAAGCCAGGC 60
ACCGGGCAGA AGCTGGGCCT TCCGCCCTCCN TTGGATGGGG TCAAGAGGCC ANGCCTGGNA 120
CATTTTGGNG TGTCTTGCT ACCAGCTCTC ACCTACANCC ACGCACCTCT NTAN 174

SEQ ID NO:6072

SEQUENCE LENGTH:186

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07212

SEQUENCE DESCRIPTION:

GATCTAGATA TNAGGTTTTT CTCCTTCATT CTCAGCTGTC GAAGAAATCA AAGTAGCATA 60

TGCACAAGGT TAAAAACCAC ATATACAAAT ACTATAGAAC AGCTTATANT GAAAACCTTG 120
 CCTGCCTTTA TANAANNTGT GATTATCTTC TTCTGTAAAT GTCAGTAANN GATGGTTTGT 180
 CCTAAA 186

5
 SEQ ID NO:6073
 SEQUENCE LENGTH:229
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10
 CLONE:HUMGS07213

SEQUENCE DESCRIPTION:
 GATCTGAGAG ATGATACATG ATACCAGATG AAAAGAAGGA GAAGTGTGTA CCATATGTTT 60
 TNAGCAGAGG NCCCTCCAAC TTATGGCATC AGGGGCAAAA AGTCACAGCT TATCCCAGGC 120
 15
 ACCCTGGCAG GTTCTCAGAG CCTGCCTCCT CCCTGTTTAT ATGCGTACAG CCTGGTAACC 180
 CCCAGGCATG CAANTATACA GTCTGTAACA ACAGGNNNTT NNTNNNTTN 229

SEQ ID NO:6074
 SEQUENCE LENGTH:50
 20
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS07214
 SEQUENCE DESCRIPTION:
 25
 GATCTTAAAA CTGAATAAAA ATATTTAATA AAACCTTGAA ATATTTTAAA 50

SEQ ID NO:6075
 SEQUENCE LENGTH:297
 SEQUENCE TYPE:nucleic acid
 30
 TOPOLOGY:linear
 CLONE:HUMGS07215
 SEQUENCE DESCRIPTION:
 GATCCATTCT ATCCATCCGT TATGTGGCTT TGCCATCCCA GCTTGGAGTG TCTTTACAAA 60
 35
 GATAATAACA GTTGTCTTCT TTGCTCTCGT TTTGGATGCA TAGACTGAAA AATTAAAAACA 120
 AATAACTTGT AAAATGGCTT GTNAAAAAAT ACAATTACCT CTAATTAGTA GTACGCGTAA 180
 NNTTTTTACA GAATGANAGG CGTGCTTTNN ATTTCTTAC TGCATTACAT TGGTGGCGAA 240
 AGANGTCTGT ATGANANTCA GTNCTTNTGC TGACACAAGN TCCATTGTTG NACANAN 297

40
 SEQ ID NO:6076
 SEQUENCE LENGTH:191
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 45
 CLONE:HUMGS07216
 SEQUENCE DESCRIPTION:
 GATCCTCAAT CAGTGGGTGG AGGATAACAG GGTAGATTCA CTTGTTTGCA CTTNTACAGT 60
 TGTAGCTGCG AGTCCAGAAG TCCTCTAGAG CATGTTTACT GGCAGTGAAGT TGGTGAGACA 120
 GTTGTGGAGT ATCCCATCTT GATGAGTACA GAAAAAAGAA NGANGAGAAA 180
 50
 AANTTANGAA A 191

SEQ ID NO:6077

SEQUENCE LENGTH:235

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07217

SEQUENCE DESCRIPTION:

GATCCGAGCG TCGTGAATC ACCTGAACTT TGGAAGGTTG GCACTGGGGG GCCGCATCCC 60
 CCTGGGAAAT NACTGAACGC GGGGTTTCAN TGGGTCCCGC CTGGGTCTAA GGACCCAGTT 120
 TCTTCTGTNA GCACGGGCAG TGGGAGGCCG GTGGAAAGGC GCAGGGGCCC ACCTACGCGT 180
 CTCACATCTT CAGGGGCGCA TTTCTACAAT AAAAATCAC CCAATTAGAC CTAAA 235

SEQ ID NO:6078

SEQUENCE LENGTH:181

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07218

SEQUENCE DESCRIPTION:

GATCTATTGG ACCAAACCTT CTGCACACTC GGCCAGTTCC CTCTCCAATG TCCGGTGCCA 60
 TCTTCTGTA CCTTGTTTC TTTCTGTTCA GGAACCATCA GTCCCTTGT AATAAAGGTG 120
 GTAGATTCA TTGAGGTTT AGATTGAAAC TTTGAATAAA TCAAAAATAC TCATTCTTAA 180
 A 181

SEQ ID NO:6079

SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07219

SEQUENCE DESCRIPTION:

GATCTATCAT TACAAAATNA ATTGAATAAT AAAATAGTTT GGTAGAACT TAAA 54

SEQ ID NO:6080

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07220

SEQUENCE DESCRIPTION:

GATCCAGAGT TGAAGACCCT TCAGCTGGCT CTGCCTGCCA GTGCCACANA GTGCCATGGC 60
 CCAGGAAGAC AGGTTTTNTT CCATCTAGGC CAGGCCATCC AGTGGCCATC CTCCGTGTCC 120
 TCCCGCCTCC TCCTGGTGTG ACTTCTGAAA ACCAAGAATT TGTCCTGTT GACTTTTTCT 180
 GTGCTATGGA CCATTGTCCT CTCACCCACT CAATAATCT TGAAT 225

SEQ ID NO:6081

SEQUENCE LENGTH:291

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07221

SEQUENCE DESCRIPTION:

5 GATCTCTNCT AACNNTAGTA AATAAACACT AAAGTGGTGG GCTTTGATAA TGCATTNGT 60
 GGATACAAAA TCATCGNCTC ATCACTTTCT AGAATGAAAAG GCTGGGAGGC ATTGCTCACC 120
 TTTTGCGTGA AGAAAAGACC TGTCCCTTAG AGCCAGTTTT TNCTTAAGGG GAGGACAGAC 180
 CGTCGTCACC CAGTGGACCN CGTTGGATGG NTGGATGCAG TNCATNCTTT AGAAGCACCG 240
 10 CATACCTGCT TGTACAGGT NCAGNGTAAG TGGTCTTNGC TNCTGTGGGA N 291

SEQ ID NO:6082

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS07222

SEQUENCE DESCRIPTION:

GATCTNCCCT AGCCCTCTNT TCCAGAAGAT GCCCTCCAAT CCTTTCCACC CNATTCCCTA 60
 20 ACTNTNGGGA CCTCGTTTGG AAGTTTTCTG TGGGCTTGGC CTTGGTN 107

SEQ ID NO:6083

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS07223

SEQUENCE DESCRIPTION:

GATCTAGTTT TCCAAGTAAC ATTTGTGGT GACAGAAGCC TAAAAAAAAG CTAAAATCAG 60
 30 GAAAGAAAAG GAAAATACG ANTTGAAAAT TAAGGAAATG TTAGTAAANT AGATGAGTGT 120
 TAANCTAGAT TGTNTTCATT NCTAGATAAN NTGTATAACG CTCTCTGTNC TAN 173

SEQ ID NO:6084

SEQUENCE LENGTH:328

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07224

SEQUENCE DESCRIPTION:

GATCACCTGC GTGTCCCATC TACAGACCTG CGGCTTCATA AAACNCTNA TTTCTCTTCA 60
 40 GCTTTGAAAA GGGTTACCCT GGGCACTGGC CTAGAGCCTC ACCTCCTAAT AGACTTAGCC 120
 CCATGAGTTT GCCATGTTGA GCAGGACTAT TTCTGGCACT TGCAAGTCCC ATGATTTCTT 180
 CGGTAATTCT GAGGGTGGGG GGAGGGACAT GAAATCATCT TAGCTTAGCT TTCTGTCTGT 240
 GAAATGTCTA TATAGTGTAT TGTGTGTTTT AACAAATGNT TTACACTGAC TGTTGCTGTA 300
 45 AAAGNGAATN TGGGAATAAA GTTATTTN 328

SEQ ID NO:6085

SEQUENCE LENGTH:156

SEQUENCE TYPE:nucleic acid

50 TOPOLOGY:linear

55

CLONE:HUMGS07225

SEQUENCE DESCRIPTION:

5 GATCTCAGCT ATTTAAATAC AAACCTTGAAA AAAATATTTT TCCAGGGTAC CATAAATATG 60
ATTAANTNNN TAAAAAATTT AGTGTCACTT GATGAAAATA TAACTAGACC AATAGTAAAA 120
TNCAGGTGTA TCTTANTTCC CTGANGTCCT CATTN 156

SEQ ID NO:6086

10 SEQUENCE LENGTH:276

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07226

SEQUENCE DESCRIPTION:

15 GATCCTGGGC TGCTGGTGCT ACCTGCGGCT GCAGCGCATC ANCCAGTCGG AGGACGAGGA 60
GAGCATCGTG GGGGATGGGG AGACCAAGGA ACCCTTCCTG CTGGTGCACT ATTGGGCCAA 120
GGGACCGTGC GTGGAGAGAA AGGCCAAGCT GATGACTCCC AACGGCCCGN AAGTCCACGG 180
CTGAGCCAGG ATTCAAGGNT CCTNGTCCTA TTTNCAGCCG GCCAANNGGC GCTNGNAGGG 240
20 GNAAANCCAT ACGGTTGCGC TNNTGTCTGA GAGGAN 276

SEQ ID NO:6087

SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS07227

SEQUENCE DESCRIPTION:

30 GATCTTGCCA CATCTGGCAC GGAGACGACA CAGTAATNCT GAAAAAGCCT CTATGTAGTC 60
CTGTTAGTNT CTTAAAGAAC CTAAGAGCTN GGACCAGTAA AATCCACAGA AATCACTCT 120
TGCCTTTAAG AACTTTTGAA AACTGTTTAA A 151

SEQ ID NO:6088

SEQUENCE LENGTH:373

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07228

SEQUENCE DESCRIPTION:

40 GATCCAATGG ATTTAAACAG AAGCNCCTTG CCAGGCTTGC CAGCAAGAAG GCAGTGGAGG 60
AACTTGCCTA CAAATGGAGT GTTGAGGATA TGTAACCTTC CTNAGGCTGT GGGGGTGGCT 120
GGNCTGTGGT AGTGGGCATA GGCAGCGAGA TATCCAGTGG TAACAGTTGT CTGTGCTAAT 180
AATTGGAGCC CACACAGNCC AGCAGCTTGT TGAATGCCAG TTTTGACCAC AGAAGGTTA 240
TTCGAGGCCT NATGTTTGA CTGAGGTACC TGTACTTCTT NGGGTGTTGA CAGCACCAGG 300
45 TGTTGCTGGN TTTGAGAGG AGCGTTGATT TCTCNTTGAC CAGGGNTTNT TCTTTGGTTA 360
GGGTGTTTCT TCN 373

SEQ ID NO:6089

SEQUENCE LENGTH:174

50 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS07229

SEQUENCE DESCRIPTION:

5 GATCAGNAGA GGCCANGCTC CNCCCCACCC CAAACAGCAT GAACTTCCCA AGGCTCCATC 60
 CCTTTCTCCC AGTGCACAGG CTGGTCACTT TCTCCGGGTA CCCCCTTGGG TACCTTGGCT 120
 GTCTCAGTTC TATTTAACCA TTTCCCCACT TTTGAGCATT TACTCACAGT TAAA 174

10 SEQ ID NO:6090

SEQUENCE LENGTH:142

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07230

15 SEQUENCE DESCRIPTION:

GATCTCAGAT TTTTTTGAA GTTAACATGC CTGACACAGA CATCCTTTC TCTACAAGC 60
 TGTGTGACTT AGTAGATAAA ATACTGCCTT CTGCCTTTGG GACCATGATT AAAAACAAAG 120
 ACAAAAACCA AAAGTCATTA AA 142

20 SEQ ID NO:6091

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS07231

SEQUENCE DESCRIPTION:

GATCACTGGA CATCAAGAT TCATTGCACT TATGAACAAG GAACCTTCTT TTCAATTTCT 60
 GTGTAATTTG CAAGGCTGTA CAATGTGTGC TGATGCAAGC CTTTTTCAGT TCAAGAGAAT 120
 AAATGTTTAC AANTATAAA 139

30

SEQ ID NO:6092

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS07232

SEQUENCE DESCRIPTION:

40 GATCTATAAA TCAAGAAAAT CCATTGTCAT AACCATTTTT AAAAGTCAAA AATTAAGACA 60
 TCCTTAATTA AAANGTTTCA AATCTAGACA CTAAATGTGT GTGANTGTAC AAAGAAAACA 120
 ANCCATTGCT TATNCTGTTA TATACTAGTG NNCCTTTTAN TTTTGCTTGC TGTTTTAAAC 180
 TTGGACAGTT TGAGGACTTT NGTTGGANCT TCGTATTGTA NGANCTGTTN 230

45 SEQ ID NO:6093

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07235

SEQUENCE DESCRIPTION:

50 GATCGAGGAC TATTCNGTG CTATTCATTC CTCCATTGCT AAACAGATNA AAAGCGACGG 60

55

TTNCTNCACT AACAGCAGCT GGGAAAGANG TTATGCTTGT TGN 103

SEQ ID NO:6094

SEQUENCE LENGTH:246

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07238

SEQUENCE DESCRIPTION:

GATCCCAAGG ACCTGGAGCC ACGGGCTGCC AACTGCACTC GGGTACTGGT GTGGCATACT 60
CGGACAGAGA AGCCCAAGAT GAAGCAGGAG GAGCAGCTGC AGCGGCAGGG CCGGGGCTCA 120
GACCCAGCAA TTGAGGTGTG ATGGCGGCC CACCCCAACT ACCACCTCTT TTCAGGCACA 180
GACCTTGTGG GACTGGGNCC AGGCCTNCCC AGGATTGTGG GTTTTCCAA AGTCCTTGAC 240
CNTTTN 246

SEQ ID NO:6095

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07241

SEQUENCE DESCRIPTION:

GATCCACCAG CCTCAGCCTC CCAGAGTGCT GGGATTACAG GCGTGAATGT AATNNTTTT 60
AAAAAGAAA ACATGGNTGT AAAGAAAGTA AAGCTTCGTT TTGAACAGTT ATGATGGTAA 120
CACANCTCAA NGGTGCAACT AANGCAGTGC TGCANCCN 158

SEQ ID NO:6096

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07243

SEQUENCE DESCRIPTION:

GATCTGTGAC ACTNACATGG CTGTGGTGTG CATACTGTGT AGTTACATAG CCCTTCCAAT 60
TCTGGGTCCA TTTGCACTAG CAAATTAATA TATGCTTTGA TTCATACTTA AA 112

SEQ ID NO:6097

SEQUENCE LENGTH:81

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07244

SEQUENCE DESCRIPTION:

GATCCCAAAC NACTCACTCC TTAAATTCAC ACTTTGCCAC TTAACCTCAG TGTGGATGAC 60
AGAGCGAGAC CCTGCCTCAA A 81

SEQ ID NO:6098

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07245

SEQUENCE DESCRIPTION:

5 GATCAACCTC AACACCTGGC NTCTCANGCC TATATACCGA CATATNCAGC AAACCCTNAT 60
GNAGGCTACA AAGTACGCGC AAGTACCCAC GTAAGTGACG TTAN 104

SEQ ID NO:6099

SEQUENCE LENGTH:54

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07246

SEQUENCE DESCRIPTION:

15 GATCTTTTCT AAATATTATT ACTTGTAAT AAAGTCTATT TTGNTCCCGT GAAA 54

SEQ ID NO:6100

SEQUENCE LENGTH:133

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07249

SEQUENCE DESCRIPTION:

25 GATCTAAATA TGAAAAGTAT GTCCTGCTGA ATTTTCCTGT GNATTGGTGA GCGGACAGAC 60
TACCTGTAAA CCATGACCTC CTTGCCAAAC GTTAGTTTAA TNAGNTCACT NGTAACCTTT 120
GAGAAATNNTC TGN 133

SEQ ID NO:6101

SEQUENCE LENGTH:104

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07250

SEQUENCE DESCRIPTION:

35 GATCGTNCCA CTNACCTCCA GCCTGGGGGN NAGAGCAAGA CCGTGTCTCA AAAACAATTN 60
AGTCTGAAAC ACAATTGTCC TGAATCTGTC TGAATAAAC TCTN 104

SEQ ID NO:6102

SEQUENCE LENGTH:126

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07251

SEQUENCE DESCRIPTION:

45 GATCTCAAAA AAGAAGGAAT TTCTCCTNTN TNTCTTGCAG TTAATGTAAG ANTACTTTAA 60
ATCTCTAANC TTCTGAAGTG TTAGAGGTAG AGATGGTCTA GTAAAGATGT GGTAGTAATG 120
TNTTAN 126

SEQ ID NO:6103

50 SEQUENCE LENGTH:179

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07253

SEQUENCE DESCRIPTION:

GATCAAGCCA TCGGAGCTGC TAGAGTTCTG TCTGGACTTT CCAGAGACCA AGTNTTCCT 60
TTTGCTGCCT CTAAAAGGCC TGTGCCTGCA GACATGTGAG ACAGCAGGTC TGATGGGGGT 120
GACAAGCTTT NTTTTTTTNN CCNAAAGAAAN TTNCAAATTC AATTCAGAT TGNTTTTNN 179

SEQ ID NO:6104

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07257

SEQUENCE DESCRIPTION:

GATCAAATTT CANTGGCTTT NGACAGAAAA GAAGGCTCTG GATTTAAGCG GGTGGTCACC 60
TGTNAGACCA GGTCTACCTT GGGACTGTNA TTAACTGAA TCAGTTATTT CCTTGAAATT 120
TCACAGTAGT GGGTGGGCCT GTTTAAGGN TCTGACAGAT ACCACGAAAC ATGAAGCACG 180
TGAACTACA AGACCCCGG GGTCTTCTG AGTGCAAGGC TGAAATGGGN CAAGGGCTCC 240
TCACGGGGNG TGGAGGGNNG CCGGGAGNCT TNCNTGGTTG TTNCNTTTT TGN 293

SEQ ID NO:6105

SEQUENCE LENGTH:110

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07259

SEQUENCE DESCRIPTION:

GATCCCGTNC GGC CGCTGC CCGAGAGGAA CAATGACAGC TTTGCAGTTC TCCNGGAGTN 60
CGCTGAGGAG CAGCTGCAAG CCGACCANGT NTTCAATTAC TTCCACAAGN 110

SEQ ID NO:6106

SEQUENCE LENGTH:183

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07261

SEQUENCE DESCRIPTION:

GATCTAGTAC TCCTTGATGA AGAATCGGGG CCTGTAACT TACCTCCAGC ACTAAAACAT 60
CCTCANGANT TACTATAATG TGTCCAAAAT ATCACTGCAT ACAATATCTG NNATTTGAAG 120
TGAAAACTG ACTTTNGTAT AGTATAAAC ACAGGCTTTC ACAANTTTTG GTNTNGCTGG 180
NTN 183

SEQ ID NO:6107

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07263

SEQUENCE DESCRIPTION:

GATCCTGANG ATGATGATGA TGATGATGAT GAAGAATAAA TGGAAATCAAA ATGCTAGCTT 60
 NATTTGACAT NAATAAGTAA AATAAGTCAT CATGTNTTCA ACNCTGTAGT TCAGCTGTTT 120
 ACATTGAATA ATNTN 135

SEQ ID NO:6108

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07264

SEQUENCE DESCRIPTION:

GATCCTTTCC AGTTTAAGCA GCCAATCAGA CCNCTTCACA TTTCTAAAAA AATGACCTAA 60
 CTAAGCACC AGAGCTCGGA GANTTCCAGG GAAGCCAGAT ACCGAGGCCG AAATTTTITA 120
 AAAAATAAGA GTCAGAAATA AAAATAAANG GTNTCTGTTG GTCAAGATT AAA 173

SEQ ID NO:6109

SEQUENCE LENGTH:152

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07265

SEQUENCE DESCRIPTION:

GATCAATTGA AATCAACTGT GTTTTGNTT CTCTATGTCA AAGTTTAGTT TTATATTGAG 60
 AATGTTAACT TATTGCTTGG TATCTNGGGA AAAAACTTT GTAAATAAGN TATAAAGTTT 120
 CTTTGAGACA GTAAAATTAT GATTNCTTGA AA 152

SEQ ID NO:6110

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07266

SEQUENCE DESCRIPTION:

GATCTGCTCA CCTCGGCCTC CCAAAGCCTC AGCCTCTTAC AGTGTGGGA TTACAGGCGT 60
 GAGACACTGT GACCCGGGAC GATTTTCAAT CACAGTTTT TGNTACGAGT GGAAATGCG 120
 TATTATAAG AATGAAGTAG TACAGACATG ANNTGTAGA AATCTCTATA ATCCTGCCAT 180
 CCAAGGTTGG TACCTGTTAA TGTGTATATC AGGGATGTGC AATCTTTTGG CCTNCCTGTG 240
 CCACACTTNG AAGAAGAAGA ATCGNCTTGG GCCACGGATA NANTNNCACT AACACTAGCA 300
 ATACCTGGTG NGCTGAAANA GNNAGTTAAT TCNCNTN 337

SEQ ID NO:6111

SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07267

SEQUENCE DESCRIPTION:

GATCCTGTTA ATNAAACCAC AGACACCATA TATCCTTCTG CATCCTTTGG CCAATAAAAG 60

TTGCTGGAGA ACCAAA

76

SEQ ID NO:6112

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07268

SEQUENCE DESCRIPTION:

GATCAAGGAG AGTCACAGCC TTATTAAGG TTTATTAAAC AATANTATAA AANTTTTAAA 60

CCTACTTGAT NTTCCATAAC AAAGCTGATT TAAGCAAAC GCATTTTTC NCAGGAGAAA 120

TAATCATATT CGTAATTCA AANGTTGTAT AAAANTATT NCTATTGTNG TTCAAN 176

SEQ ID NO:6113

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07269

SEQUENCE DESCRIPTION:

GATCGACACG TGGGGGCGCC TGAGCGAAGA TAACCGTAAT AAATAGTAAC CTAACGGTCC 60

AAA 63

SEQ ID NO:6114

SEQUENCE LENGTH:73

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07270

SEQUENCE DESCRIPTION:

GATCAGNCCT CGCGCAGTGG CTCAGGCTG TAATCTCAGC ATTTTGGGAG NCCGAGTGAG 60

ACCTTGCTT AAA 73

SEQ ID NO:6115

SEQUENCE LENGTH:243

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07272

SEQUENCE DESCRIPTION:

GATCTTAAAT ATTCTAAAGT TTGTATTGTG ACTTCCAGTA ATGTAACTA TATGAGGCTA 60

ATCCTCTTTT CCTCCTTTT GTTTGTAAAC CTCATTGGG ATAAGTAA CTAGTATTAT 120

TTTATTATG TAATAAAAT ATATGTGAAA TAAAGTGTA CTGGTAAAG ACTTGTAAC 180

ATGATAANTA TTAGCAAGTT GCATACAGAN TTAANAGNGN GNGNGNANG GNGTGNGGTN 240

TGN 243

SEQ ID NO:6116

SEQUENCE LENGTH:199

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07274

SEQUENCE DESCRIPTION:

5 GATCAGAAAGT TCAAGGGACC GTGAAAGCCC TCAGAGTCAG CACCTAGTTT CAGACCAAGC 60
 ACCCTTTTGA ATCCCTGGAT GGCTGAGGGG GCTGAGGCCG GCTCTGACTG GGCAGCTCAG 120
 CNCCTCCCCC AGAGCCCAGG GTCTTGCACA CCCCTNCCTG TAACCAAGGA AACTCTGTAA 180
 ATAAAGGTGA ATGGCTAAA 199

10

SEQ ID NO:6117

SEQUENCE LENGTH:283

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS07275

SEQUENCE DESCRIPTION:

20 GATCAAAATA CTAATAAATT ACTCAGAC TCAGTGTATT TTTNCTTGA GTAAAAGTCC 60
 AGGATGGGTA ATAGAATACC TGCTGTTGGC TTTTGAAAA ATTGGTACTG TATGTAGCAA 120
 AATAATGTGA AACCACATG CATGGATATT CTAAACAATT TGAAGAAATC GTCACAGCTT 180
 TCCTGGGTTG TTGAGCCTCT AAGATGGTCT TTTCCTCTGA TGTGATAATA AAGTGTTTAT 240
 TCTGANCTCT AAAAAAANN NANNGNGGNG NNTGNGTGG NGN 283

25

SEQ ID NO:6118

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07276

SEQUENCE DESCRIPTION:

30 GATCACAGTT TTACAAATCT TAGTTTTAAA TAAATTATTT CAGTGTGCTG TTAGTCCTCT 60
 ACAGTCATTT TGGTTTAAAA AGTGACTATT TATTTATGGT AGNATATCAA TAATTTATTA 120
 ATGTTAAAAA ATACTGTGTA TGACATTACA AACCAGANCA GTTCCTGGGG GAGAGGNTTC 180
 TNATTGATTG GCAGTTCTGA GAGGGCAAGA NGANTGGNAC TTTATNCTTC AAAAGGNGGT 240
 TTTGGTTTTN CCAGGTACTG CTTATGTNAA TCGTTTATTT TTNTTTCATC AAAGCCTGGC 300
 35 ANGTNTATGC NTTCCAN 317

40

SEQ ID NO:6119

SEQUENCE LENGTH:360

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07277

SEQUENCE DESCRIPTION:

45 GATCGACGAG CTGCTGCAGG AGTTCGAGGA GAAGAGTGGC CGCACCTTTC TGCACACCGT 60
 CTGCTTCTAC TGAGCCCAGC GCCCGCATGG AGCCGCCTCT GGAGCTTCCT GTTGTTTATA 120
 CTTTTTCCTT CCTGACATTT GTTTTTACTT ACAGGTGTTT TGCTGGTGAC GGTAGCATT 180
 CCCAAATAAA CTGTGCATAT GAAATGGGAG AGGAGATGCC AAAACGCCAG ATGAAAGCAA 240
 TCAAGTTTCT TCTTTCCAC TTTTACTTAT GAGCGGGATA TTGATTACAN GGNNTTCTT 300
 50 CTTTAACCAA AAAGGAAAGA CANCGGTTTG TGTGCACTTC CCGNCATACC TGTGTCTTTN 360

55

SEQ ID NO:6120

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07278

SEQUENCE DESCRIPTION:

GATCGGGAAG ACTGAGTAGG GAAGGCAGGG CTGCCNAGAA GTCTCANAGG CACCTCACGC 60
 CAGCCATCGC GGAGAGCTCA GAGGGCCGTC CCCACCCTGC CTCCTCCCTG CTGCTTTGCA 120
 TTCAC TTCCT TGGCCAGAGT CAGGGGACAG GGAGAGAGCT CCACACTGTA ACCACTGGGT 180
 CTGGGNTCCA TCCTGCGCCC AAAGACATCC ACCCAGACCT CATTATTCT TGCTCTATCA 240
 TTCTGTTTCA NTAAAGACAT TTGAATAAA CGNGCATATC ATAGCCTGGA AA 292

SEQ ID NO:6121

SEQUENCE LENGTH:30

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07279

SEQUENCE DESCRIPTION:

GATCCAATAA ATNTCCTTTT TTGCTTAAA 30

SEQ ID NO:6122

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07280

SEQUENCE DESCRIPTION:

GATCGGGAGA GGGAGGAGAG GCAGTCTCTT GACAAAATAA AGTATTTTTA TTCATTTGTG 60
 TTTATTAAAT GAAAAANCAA TCCCATGGTG TCCCTGTTGT GTGGTGGACC TAATGNCTGT 120
 TGAAATAAAG TTCTGTGTTT TCCCTGAAA 149

SEQ ID NO:6123

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07281

SEQUENCE DESCRIPTION:

GATCCACCAA TGGAATTAGA TGGGTAGAGT TGGGTCTTG AGTTTTACCA CCACTTTGTT 60
 CCCACTGAAT TTTGTAATT GCTGTGTTT CATCCTCTGT TCCTATTCTG CCCTTGCTCT 120
 GTGTCATCTC AGTCATTGA CTTAGAAAGT GCCCTTCAA AGGGGCCTGT TCACTGCTGC 180
 ACTTTTCAAT GAATTAAAT TTATTCTGT NCTAAA 216

SEQ ID NO:6124

SEQUENCE LENGTH:205

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07282

SEQUENCE DESCRIPTION:

5 GATCTCATCA ACCCTTTGAA ATGTTCTGGG CAGCACAGCT CCTTGGTCTG CATGGTTGGT 60
 GTAAGTATAA TCANGTAGTG AAATTGTATG GTATATACCT ATATGCCANC AGTGTACACC 120
 CGTATGTGCA GAATTTGCTA NTATAACCAT TTCAATAAAA ACCTATTGAA AAAGCTGAAA 180
 AAANNANAAA NGNAGGAGGN GNGGN 205

10

SEQ ID NO:6125

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS07283

SEQUENCE DESCRIPTION:

20 GATCTTTGCC AGGGGTCAAA GCGTCGGGAA GCTTGGGGTC CTTATCCTG ACGTTATCAC 60
 CAAATTTNAG CTGACCATGC CTGCTCCTC CTTAGAAATC AATATTGGAC CCTTTTGTG 120
 AAGATTGGTC TCTGTGGTGT GATTCTCTNC CCAGGTGTCC CTTTCTCCTC CCCTAGTGTG 180
 CTTAAGTCCT CCTCCACAGG GAACATCTAT TTGGGCTTTG ATGTTTAATA AAGTAGAAAG 240
 CACTGGNAAA AAAAGAAANN NGNNNTGTGT NTGTTNNNN 279

25

SEQ ID NO:6126

SEQUENCE LENGTH:226

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07284

SEQUENCE DESCRIPTION:

30 GATCCTAAGG AACATAAAGT TAATTAAGAA CTTACACCTA ATTATGTAAG TNGCCTTGT 60
 AAAGACATGT GATTTGTATT TNAGATGCTT GTTTCCTATT AAAATACAGA CATTTCTACC 120
 CTCAGTTTCT AAATGTAGAC TATTTGTTGG CTAGTACTTG ATAGATTCTT TGTAAGANAA 180
 ANTGCTGGGT AATGTNCCTG GTAACANGCC TGTNANTATN TNANGN 226

35

SEQ ID NO:6127

SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40

CLONE:HUMGS07285

SEQUENCE DESCRIPTION:

45 GATCCCATTT AGCCCCTGAA CATAATACCA TCTGCAGTAT TATAAAAGTC ATTTAGAAGG 60
 TCAGGGGGAT AATCTAGAGG CAGGATTTTG GACATTGTGA AGGAAATGTG CTCCTTCTCA 120
 GCTCACTTCA ATAACATTTT NCTGAGACTG AAGTTTTTTA GACAAGANTA AGANAACCTT 180
 GCTTTNTTCA GTTATCACAT GTGANAGCTT TTGCTTTTGG TTAGGAAANG GTGTGGNTGA 240
 CTCTACTGCG TGGNTGGTTA CATTTTGCTT TCCGTGNAAT TGCTCNGGAA ATGNTCNGGA 300
 CATNCCNTTT NCCATTTGTG TGTCAGTGCG TATGGTNAN 339

50

SEQ ID NO:6128

55

SEQUENCE LENGTH:269

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07286

SEQUENCE DESCRIPTION:

GATCTCCTAG GACCTAGTGG ACATCTGGNA TTAATTTAAT CTCAGGAAAA ACAAGANATN 60
 AATCCAGAGA GAGTCTGGGT TCTGGAATTC AGCGTANTAC CTCCAGACCG TGGTGTCTGG 120
 CCTCCATTTT TGTCTGTNAT TCAGCTCTGA CTTACAGCTG CAGTCACCTT TNCTATAAGG 180
 CACCTGGGTA GAAGGGTGA TGGGCTTCAC ATCAAATTTT TTNCTTCCTT TAGGGTGGGG 240
 NATTGGNTTG GCTNTNTTTT GTNGTGGNN 269

SEQ ID NO:6129

SEQUENCE LENGTH:47

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07287

SEQUENCE DESCRIPTION:

GATCTGTCCT CCAAATCCTC TATTAAACCT GATAGCTTGA GCACAAA 47

SEQ ID NO:6130

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07288

SEQUENCE DESCRIPTION:

GATCAGCCCT TCTCAGCCTC CCAAAGTGCT GGGATTACAG NTGTGAGCCA CTGTGCCCGG 60
 TTCTGTGGCC TTTTCTAACA TTATCCAAGN NGCCCTAAGG TTCCTTATGA CAGGTTTGGG 120
 GATTGGGAAA GTTCAATTTT ATTGTACCGC CAATGAAAAG GTGCTATATT TTTTCTTGA 180
 ACCTNAAGGG CAGAGGCTGA ATTAATCATA TTCCTCAGCT CATTCCACAT TATCATGGCA 240
 AAGCTCTCTT TTGCTTTATT TATTTATTCT CTNNTATCTT CATACTTAAT CTCATTCCAT 300
 TCTCTGNCAT GGGCAACCAT NNNAATNGNN 330

SEQ ID NO:6131

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS07289

SEQUENCE DESCRIPTION:

GATCTTACAT GAGCATAATC ATCCTTATAC TTCATGAGGG GATTATNAGT ACAATCCCCA 60
 TTTTACTGTG TTTGAGTTAA AAACCAAACA TCCCTGTAAT TTAATTTGAA GATTCTTTAA 120
 CAGATTGCAG CAAAGTTCAT TATAAACTG TTATGGTGC TTCAAAGNCT TGATAAAANT 180
 AACACTGNGA GAGANTTGGT CCATTTGTAT GCTGTATTC TATTACTTGC CAAANGGAAT 240
 GGGGNTAGGA TTAACCTTGT TTCCATTCTC TTCNCATGGG TATCCATCCC CATGTTTANC 300
 TGNCCACNCT GGGGGGCTCN GTTGTGTGCT GTN 333